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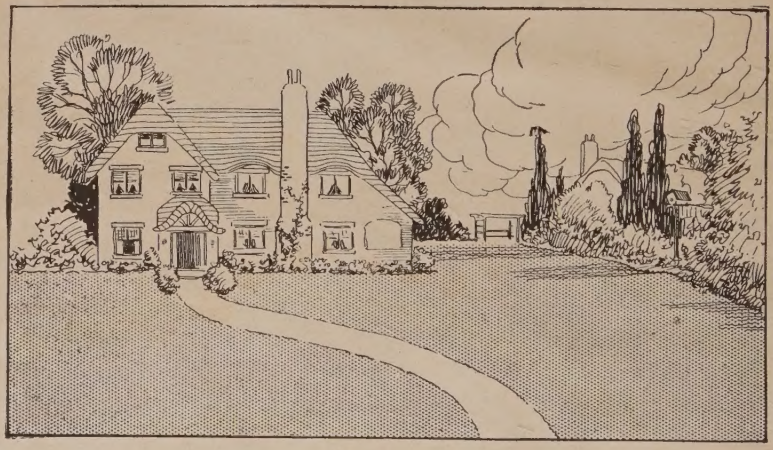

The Home

VITALOGY

AN

ENCYCLOPEDIA OF HEALTH AND HOME

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PREFACE.

THIS work, it is believed, stands in no need of any elaborate prefatory introduction, nor is it sought to bespeak for it from its readers any more favorable consideration than its merits entitle it to demand. It is confidently placed in the hands of an intelligent and discriminating public, in full assurance that it will prove an instrument of constant usefulness and a possession of inestimable and never-failing value.

It will be found to contain extensive and useful imformation of unusual practical value, on subjects that are of vital and paramount importance to every individual, including the physical well-being, comfort and happiness of man from infancy to age.

In this age of education and progress, the Science of Health is no longer the exclusive possession of a professson, but is made an open book for those who have the wisdom to learn that which more nearly than anything else concerns their lease of life, the extent to which it is to run, and their capacity for its best enjoyment.

These pages embody the wisdom and experience, and best results of years of practical observation, of prominent and enlightened physicians, upon the simplest and most effectual methods of promoting health, overcoming disease, and prolonging life.

The knowledge here imparted, and explicit and effectual instructions given for its application to the preservation and restoration of health, in all stages and conditions of life, are worth more to a family or individual than all the strong drugs in existence, leaving out of consideration the fact that it will enable its readers to dispense in a great measure with the costly services and the nauseous drugs of the apothecary.

Particular attention is directed to the "Food and Home Remedies," in the departments on diseases, which have of late years been so extensively employed in Europe and Japan, and which have

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DIVISION ONE

THE HUMAN BODY

(ANATOMY)

Our purpose in this work is to place before the reader such an account of the living body as will enable any one to understand the essential truths concerning the preservation of health, the causes of diseases, and their management.

Anatomy, with which we begin, is the study of the parts or organs of which the body is made up, and of the way in which they are put together.

The Human Skeleton—Two hundred and six bones make up the solid framework of a human body. Of these twenty-eight are in the head and face; one in the throat; twenty-five in the chest; twenty-six constitute the spine or backbone; sixty-four are in the shoulders, arms and hands; and sixty-two in the hips, thighs, legs and feet.

The Spinal Column (backbone)—In the man consists of twenty-six parts, attached in a sort of chain to each other. In very early life they number thirty-two or thirty-three parts; but five of these, at the lower portion of the spine, grow together into one bone (the sacrum), and later, the very last three or four (below the sacrum) unite, making the os coccygis, which is the rudimentary or undeveloped tail of man. Each of these links in the spinal chain is called vertebrae; all animals having backbones being called vertebrates. They constitute the highest division of the animal kingdom; with man at the summit of the whole series. Between each two vertebrae is a piece of gristle, or cartilage. These elastic pieces act like the springs of a carriage, or railway car, preventing jarring in the movements of the body.

One bone, the hyoid, or U-shaped bone, in the throat, does not touch any other bone. It forms the base of the root of the tongue, and has several muscles and ligaments attached to it.

The Thorax, or chest, is made of the breast bone (sternum) in front, twelve ribs on each side, and the dorsal part of the spine behind. Naturally, it is largest below the middle ribs. Tight-lacing spoils this shape, by narrowing the chest below, to the great disadvantage of the heart and lungs, which are contained within the thorax, injuring the health and often shortening life.

Below the chest are the hip-bones; with the wedge-shaped sacrum between them, including the cavity called the pelvis.

The upper extremity of the body consists of the shoulder, arm, forearm, wrist, and hand. For the shoulder there are two bones in man; the shoulder-blade (scapula) and collar-bone (clavicle). In the arm proper there is only one long bone, the humerus. The

head of this bone fits into a shallow socket of the scapula, in which it is kept by ligaments and surrounding muscles. Much more easily, however, than the thigh-bone, the humerus may be, by violent falls or blows, with the arm in certain positions, forced out of place, that is, dislocated at the shoulder. Fortunately it is not so very difficult to replace, if this be attended to soon after the accident. At the elbow, the humerus connects with two bones of the fore-arm—the ulna and radius. The ulna has the most to do with the elbow joint. The radius is more widely joined to the small bones of the wrist. No bone in the body is so often broken as the radius, because of its getting the main stress of a fall on the hand, naturally stretched out to save the body as one trips and goes down. Eight small and irregularly rounded bones make up the carpus, or wrist. This is a very hard joint to dislocate, bound together as the carpal bones are with tough, short ligaments. This is needful, on account of its frequent exposure to violence through the hand. The five metacarpal bones make up the frame-work of the hand. Although covered with muscles and held close together under the skin, we can easily trace the form of these by feeling for them; one bone for the thumb and one for each finger. Every finger (digit) has three parts or joints; the thumb only two. Phalanges, these are called by anatomists; 1st, 2nd and 3rd phalanx of each finger; 1st and 2nd for the thumb.

The lower extremity consists of the thigh, leg, and foot; with joints at the hip, knee, ankle, and toes. The thigh-bone or femur, is the longest bone in the body. Two bones, tibia (the thicker one) and fibula (slender) make the skeleton of the leg. At the knee, in front, is a small round flat patella, or knee-pan; which gives protection to the joint. Seven bones constitute the ankle and instep of the foot, called the tarsus. The heel-bone, one of these, is called in anatomy the os calcis. Next to the instep come the five long, slender, metatarsal bones of the foot; then the toes, or digits, with three parts or phalanges for each, except the great toe, which has but two.

JOINTS

Bones are held together by tough, fibrous ligaments. Between their ends, or in the sockets of some joints, are pieces or cartilage. There are two principal sorts of joints—more exactly called articulations—fixed and movable. The sutures of the head are examples of fixed or immovable joinings or articulations of bones. Movable joints are various, as follows: hinge-joints, as at the elbow and knee; ball-and-socket, as at the thigh, or hip-joint; gliding, as at the junction of the lower jaw with temporal bones of the head. All the other bones which are connected together have their union secured by ligaments, variously (and yet simply) arranged; as, the pieces (vertebrae) of the spinal column; the collar-bone (clavicle), at one end with the shoulder-blade (scapula), at the other with breast-bone (sternum); the ribs with the spine.

Muscles—Looking at a piece of butcher's meat as it hangs ready for sale, we may see a fair specimen of red voluntary muscles. Dissecting one of these lengthwise, we would find it made up of delicate fibers; and a microscope would show one of these to be composed of many lesser strands of fibrillae, each of which again is formed of roundish, cell like bodies, placed end to end, like beads.

As the number of voluntary muscles is very large (between three and four hundred), we will not, in this work, undertake to describe them. Many are long, and thickest at the middle; others are broad, flat, and thin; a few run through or over distinct pulleys, changing the direction of their action.

The Skin—We have a true skin (cutis), which is laid bare by a blister and is very sensitive; and over that the protective, delicate, leather-like cuticle, epidermis, or scarf-skin. This has no feeling at all; as can be easily shown by clipping it carefully where it is thick, as near the sides of the finger nails. The tough parts of corns and warts consists of cuticle. Of the true skin there are at least two layers; undermost, one composed of a fibro-elastic tissue; and on that another, having a multitude of little elevations on it, giving it a hill and valley character all over. Rows of hillocks, with valley lines between them, are easily seen on the palms of the hands.

Each little hillock (papilla) of the skin contains the ending of a tiny branch of a nerve, and a little loop (or more than one) of small blood vessels. The warmth and nourishment of the skin depend on these vessels; its feeling resides in the nerve-endings. The epiderm, or cuticle (scarf-skin), is formed of layers of flattened cells (epithelium); seen under the miscroscope to have that character. Under the epidermis and upon the cutis, or true skin, is the color layer, composed of cells which contain a dark matter. Blonds, called fair-complexioned people, have but a few of these colored cells. Brunettes, such as Spanish or Italian beauties, possess more of them. Chinese, Egyptians, American Indians and Mulattoes show still more; Negroes, and some natives of Southern Hindostan, enough to make them fairly black. But the sun evidently has a good deal to do with the growth of this color-layer; as any one may be tanned by summer exposure (freckles or tan spots), and, by several years of tanning, in a hot climate, even a Philadelphian, New Englander, or Englishman may be browned as dark as many Mulattoes are.

Glands—of two kinds are seated in the skin: Sweat-Glands and Oil-Glands. The latter abound near the roots of the hair, furnishing them with a natural grease. The sweat-glands are distributed all over the body. Each of these has a curious, long, corkscrew-like tube running up through the skin, by which the drops

of perspiration find their way out. A good deal of moisture, however, transpires, like a vapor without gathering in drops. Both kinds, by evaporation, cool the skin, to our great advantage in hot weather when exercising actively. Beneath the skin is the common connective-tissue; serviceable as a packing material between parts everywhere. In that tissue, near the skin, and also sometimes at quite a distance from it, as around the eyeball, heart, and kidneys, is the fat. Over the abdomen, in very corpulent persons, two inches or more of this may accumulate.

Stomach and Bowels—Central in the body, and indispensable to its continued life, is the stomach; and, connected with it, the intestinal canal. The Pharynx is the upper part of the swallowing throat; the lower part is the oesophagus, going to the stomach. (See Manikin.)

The Stomach is a large sac, or bag, shaped something like an old shoe, with the larger end towards the left side. At the right end is the outlet (pylorus) from the stomach to the small intestine. The first twelve inches of the small intestine constitute the duodenum, into which pours the bile from the liver and gall bladder, and also the pancreatic juice from the sweetbread, on pancreas. The whole length of the first or small intestine is about twenty feet; of the lower, or larger intestine, between ten and fifteen feet; making from thirty to thirty-five feet for the length of the bowels of a full grown man. Occasionally, a tapeworm has been known to live within the intestines until it has acquired more than half the length of the whole canal. This worm is, however, quite flat and thin and not very wide.

The beginning of the large intestine is seen at the lower right side (See Manikin); its termination (the Anus) is shown on the left side (See Manikin). At the junction of the small and large intestines is the veriform appendix. Not far above this is the place where there is usually tenderness on pressure in case of typhoid fever. Sometimes, also, inflammation of the bowels begins near the same region.

The Liver—The liver lies across the body, chiefly but not entirely on the right side, behind the lower ribs (See Manikin). In color and general form, a calf's liver is considerably like it. Underneath it lies the gall-bladder. A tube or duct carries the bile from the liver to the gall-bladder, whence it passes out, from time to time, into the duodenum, already mentioned as the first portion of the small intestine.

The Spleen—The spleen is a round, flattened gland, a good deal smaller than the liver. It lies near the stomach somewhat on the left side (See Manikin). It is often enormously enlarged in persons who suffer with chills and fever; being then called "ague-cake."

The Pancreas—The Pancreas is a rather long, flat, and thin gland, lying across the middle of the body just below the stomach (See Manikin). It has a tube or duct which empties into the duodenum, near the entrance of the bile-duct, which comes from the liver and gall-bladder.

The Kidney Laid Open

Kidneys—The two kidneys lie, one on each side, far back in the abdomen, between the ribs and hip bone (See Manikin). The kidney is dark-red in color, containing, especially near its outer surface, many small blood vessels full of blood. Its shape is very much like that of a "kidney bean;" its length, about four inches; width two, and thickness an inch or so, in the adult. Out of it proceeds the ureter, a tube through which the urine flows to the bladder.

The Bladder—The Bladder rests in front below the intestines, just behind the bony ridge of the pelvis (See Manikin). From the bladder the urine escapes through a tube called the Urethra.

BREATHING ORGANS

In man, these are the windpipes, lungs, breathing muscles, and the blood vessels and nerves connected with these. Through the nostrils, or the mouth, air enters the larynx. We can feel this, or see it in another, where the "Adam's apple" is in a man's throat. (See Manikin.) The Larynx is the organ of voice; hence it is larger and less simple than if it were only to breathe through. Below the larynx is the Trachea, chiefly composed of cartilaginous rings; and this branches into the two bronchial tubes, one going to each lung.

The Lungs—The lungs are light, spongy organs, pinkish colored, which fill up almost all the space within the chest not occupied by the heart and great blood vessels. After death a healthy lung crackles softly when pressed by the hand; and will float on water on account of the air contained in it. Six hundred millions of air-cells, it is calculated, make up, with the little tubes joining them, the two lungs of a grown person. Each cell is about the one hundredth of an inch in diameter. The right lung consists of three portions, called lobes. The left lung has but two lobes (See Manikin).

Heart and Blood Vessels—Our blood is circulated through the body by the heart, arteries, capillaries and veins. A man's heart is about the size of his fist. It is two hearts in one; that is, one half has its entrances and exits quite separate from those of the other half. Again, each half heart has two chambers; an auricle and ventricle. We have, then, the right auricle and ventricle, and left auricle and ventricle, built against each other, like twin houses. The right half of the heart is almost in front of the other half. The heart is placed behind the breast-bone with its larger end upward, and its tip (apex) pointing downward and to the left. As its larger and stronger parts (ventricles) press out the blood from themselves into the great arteries, the heart tip beats against the chest-wall, under the fifth rib. (See Manikin.) Into the right auricle enter two large veins, the largest in the body, one from above and the other from below. These bring all the blood of the body back to the heart. The right auricle opens into the right ventricle. From the right ventricle a large vessel, the pulmonary artery, passes out, and branches into the lnngs. Four veins from the lungs enter and carry the blood into the left auricle. This opens into the left ventricle. Out of the left ventricle goes the aorta, the largest artery of the body, whose branches supply all parts of the system with blood. The Aorta forms an arch above and goes down behind the heart. It gives off branches all along, and descends in front of the backbone. Right along side of it lies the great vein (Venacava), which carries the blood from the lower part of the body and pours into the right auricle.

There are a great many arteries in the body. You can know where one lies by its pulsating or beating, like a little heart. There are still more veins, many of them right under the skin, where they can be seen, of a bluish color, as on the back of the hand. When an artery is cut, bright red blood flows, with a jerking, pulsating spurt, a great deal of blood escaping in a short time. If a vein is cut, dark, blue-black blood comes out, with a steady flow. From a large vein, as the jugular of the neck, enough may come to cause death in a little while; but from a small vein much less, and it is more easily stopped by pressure than when an artery is wounded. One simple rule will enable one to judge where the principal artery of each part of the body lies. The artery is always in the safest possible place which its destination allows.

The Capillaries—The Capillaries receive their name from their being smaller than a hair, some not more than three thousandths of an inch in diameter.

Veins—Veins receive capillaries as rivers do brooks entering into them. Small veins then join to make larger ones, till at last all unite in emptying into the great ascending and descending veins. All blood movements in the veins are toward the heart.

BRAIN AND NOSE

The Head—The head consists of the skull or cranium, and the face—the former contains the brain. The skull is composed of eight bones, connected together by sutures, having tooth-like serrated margins, which fit into or overlap each other. The whole structure is marvelous for its strength and lightness. Between the interior and exterior wall of the frontal or forehead bone are what are called the frontal sinuses, two hollow chambers, which cause those bulgings at the upper edges of the orbits, and which shelter and protect the eyes in the hollow beneath. Behind each ear there is also a bony prominence called the mastoid, to which powerful muscles are attached, especially the sterno mastoid, which is distinctly seen in the neck, and whose lower ends have their origin at the top of the sternum or breast bones. These prominences are intended to guard the entrance to the internal ear, which is placed wholly within the hollow of the temporal bones. At the center of the base of the skull is a round hole of considerable size, the foramen magnum, through which the spinal cord passes from the brain. On either side of this opening are two smooth prominences, called condyles; these rest upon the tops of the uppermost vertebræ, and allow of a nodding motion to the head.

The Nose—contains the organ of smell in vertebrate animals; and in the three highest classes is connected with the respiratory function. In man, the nose, anatomically considered, consists of two large cavities called nostrils, a right and left, formed by the bones of the face, and separated from each other by a perpendicular flat partition called the *septum*.

Each nostril is divided by the turbinated bone into the superior, middle, and inferior chambers. The upper wall of the nose is pierced by numerous foramina, through which enter the filaments of the olfactory, or nerve of smell.

Besides smell, the nose has ordinary sensation, like other parts of the face, depending on filaments of the trifacial, or fifth pair of cerebral nerves. The external prominent part of the nose, which gives character to the features, is composed of several cartilages connected to the bones and to each other by strong fibrous tissue, sufficiently firm to preserve the shape of the organ, and so elastic and flexible as to permit the expansion.

The brain is a wonderful organ. It weighs about three pounds, and almost fills the inside of the skull. It is shaped like an oval loaf of bread and is split in the center, in two parts, that are called hemispheres, and look like enlarged coffee beans.

Each hemisphere controls the opposite half of the body. An injury to the left side of the brain, for instance, will cause paralysis of the right side of the body.

It has an irregular surface and many wrinkles on it. In man, these grooves and wrinkles are more fully developed than in animals. Its size also varies greatly in different animals, being usually much larger in the intelligent species.

What Man's "Gray Matter" Is—The most interesting part of the brain is the gray matter which makes up its outer layer. This gray matter contains cells which take care of the important and delicate work of the brain. They exert certain chemical or physical effects on one another, and it is by these effects that incoming sensations and impressions lead to sending out of messages to the "action" nerve fibers.

The rest of the brain is made up of white nerve fibers, which are called white matter. These are like telephone wires, carrying messages to the muscles, or from one piece of gray matter to the next.

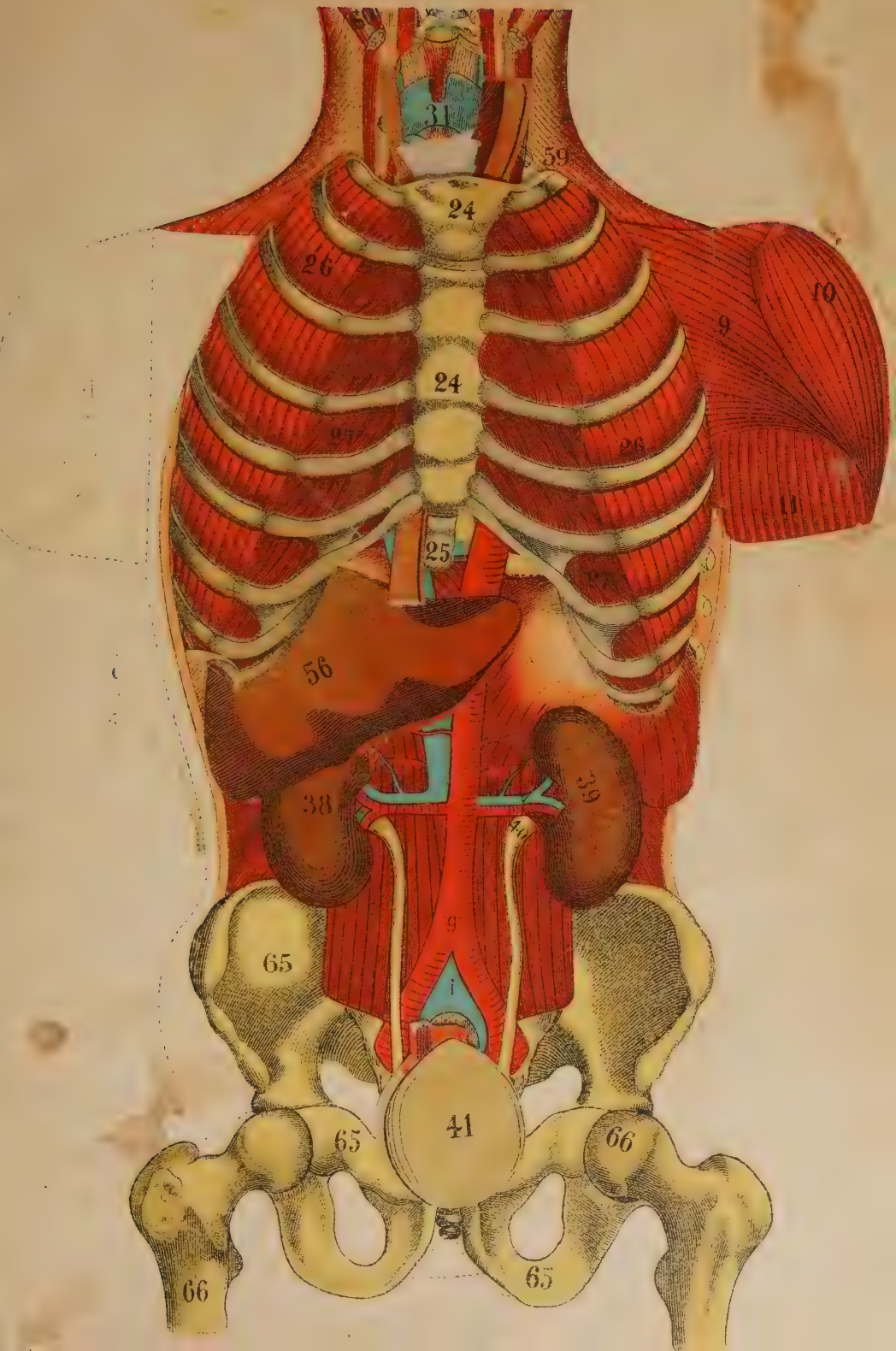
We know a few things about the action of certain parts of the brain. There is a small strip just above the ear that controls the movements of different parts of the body. When we have a tumor of the brain or an injury to the skull in this part, by noticing the muscles that are paralyzed, we can tell exactly where the tumor or injury is. Then we drill a hole in the skull, directly over it, and remove the tumor, take out the splinter of bone, etc.

Other parts of the brain control the action of our senses—hearing, seeing, smelling and tasting, as well as the processes of walking and breathing. Damage to these parts will make us blind or deaf or lose the sense of smell, as the case may be.

However, there is very little we know about the way the brain carries on our reasoning and thinking processes. The thoughts or experiences are entered in the brain. They are compared with each other and with the previous experiences it has stored up. Thus memory, judgment and thought are developed.

We do not know the particular part of the brain in which each of these processes is carried out. It is the work of the brain as a whole. Anger, joy, jealousy, fear, and other emotions and mental powers are general effects of our heredity and environment and are not found in any particular spot in the brain.

Lymphatic vessels are distributed all over the body, except in the brain, spinal marrow, and a few other parts. They are small and delicate (except the two large ducts which receive the rest), and contain a colorless fluid, called lymph. Those of the small intestines, however, convey a milk-like fluid called chyle; and these vessels are named lacteals. Most of the lymphatics and all the lacteals empty into the left thoracic duct. This passes up through the abdomen and the chest; to discharge its contents into the junction of two large veins, one from the arm and the other from the neck. There is a much shorter similar thoracic duct on the right side. All along the course of the lymphatic vessels are small flat and round "kernels," the lymphatic glands. They are most numerous in the deeper part of the abdomen, in the arm-pit, the neck, and the groins. When healthy, they are not large and hard enough to be seen or felt: but when diseased, they sometimes become quite large and conspicuous.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Explanatory Key to Manikin.

Lift the head piece and the first view shows the body denuded of the cuticle or true skin, and indicates the position of the principal muscles whose names and uses are given in the following table. The figures refer to the numbers on the Manikin.

1. Frontal muscle, by contraction enables one to wrinkle the brow.
2. Temporal muscle, by which some people are able to give motion to the ear.
3. Orbicularis Palpebrarum, or muscle around the eye which permits such a varied movement to the eye lids.
4. Zygomatic muscles or cheek muscles, so named because they are fastened to the Zygoma or bony arch which forms what is known as the cheek bone.
5. Masseter muscles, short thick muscles that raise the lower jaw.
6. Sterno-Cleido Mastoid muscle, named from the bones to which it is attached is the principal muscle used in bending the head forward and backward.
7. Sterno-Hyoid muscle, which is attached to the Sternum and Hyoid or upper Larynx bone.
8. Rectis Capitis muscle, or the one used in moving head from side to side.
9. Pectoral muscle or breast muscle.
10. Deltrid or shoulder muscle.
11. Biceps, or big muscle of the arm.
12. Serratus Magnus, or outer rib muscles.
13. Abdominal muscles
14. External oblique or hip muscles.
15. Internal oblique or inner hip muscles.

The back of the first leaf shows some of the inner muscles attached under or back of the nose, eyes and lips which are here cut away.

16. Hyoid muscle, which helps to lift the shoulder and turn or bend the head.
17. Thyroid muscle, which is one of the chief muscles giving movement to the Larynx or organ of the voice.
18. Pterygoid or wing shaped muscle.
19. External Pterygoid muscle.
20. Root of Tongue.
21. Maxillary or jaw bone.
22. Parietal bone.
23. Frontal bone.

The next leaf shows the breast bone and ribs free of the skin and surface muscles but showing the muscles that hold the ribs from within.

24. Sternum or breast bone ending in.
25. Cartilage or gristle.
26. Intercostal or between-rib muscles.
27. Lower layer of same.

Turning over this leaf we see.

28. The tendons that hold the flexible ends of the ribs and bind them to the Sternum.

It exposes to view also. the position of the internal organs, lungs, heart, liver, stomach and viscera.

29. Outer view of right lung.
30. Outer view of left lung.
31. Larynx or Adam's apple.

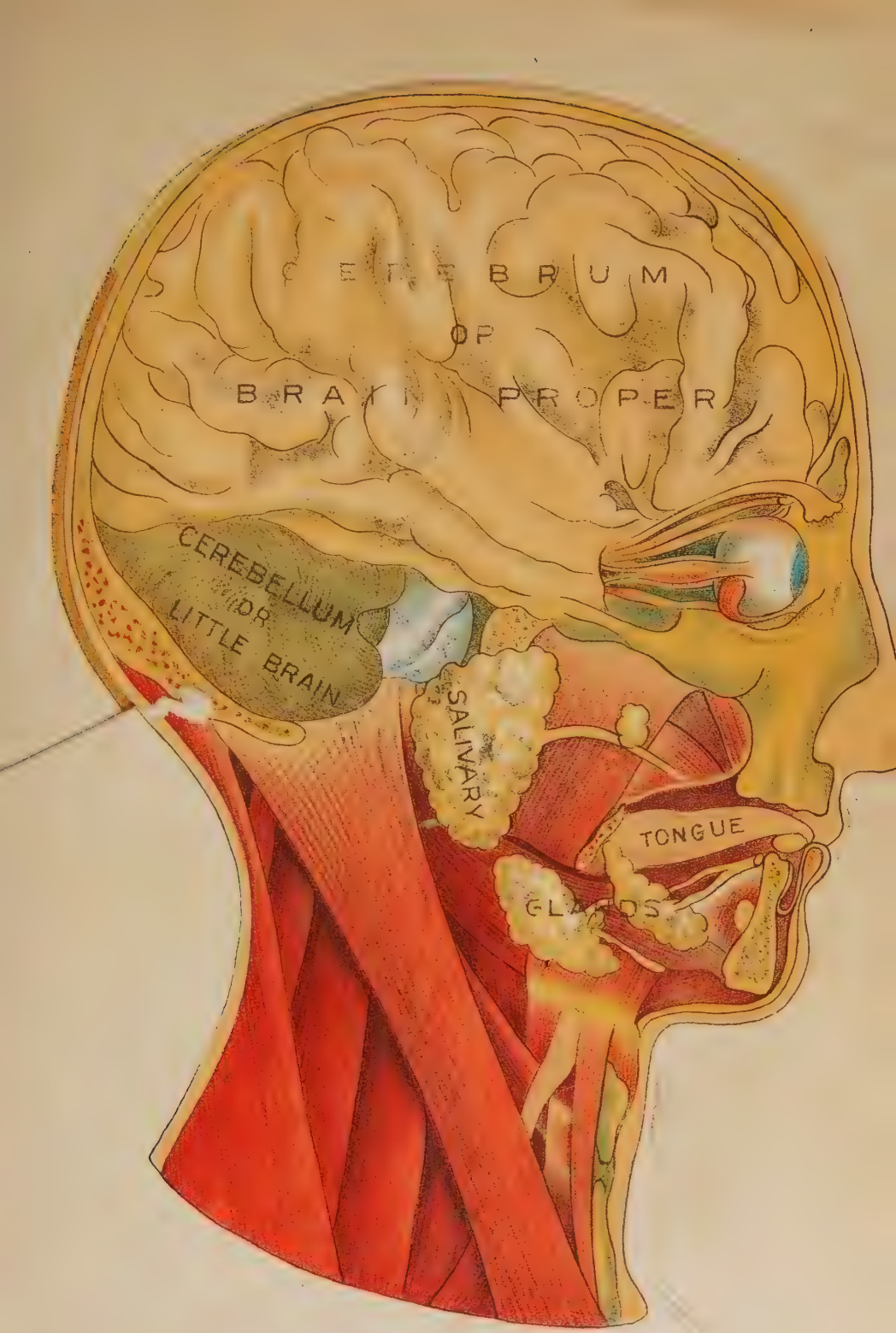
32. Thyroid Cartilage, which is a part of the Larynx.
33. The Trachea, or windpipe is seen just behind the thyroid cartilage. found by opening the lungs and lifting the Heart (35) and A-or-ta (g).
34. Different views of the Bronchial Tubes which bring the air to all parts of the lungs.
35. Heart.
    a. Right Auricle, which receives the impure blood.
    b. Right Ventricle which sends impure blood to the lungs.
    c. h. Vena Cava which pour impure blood into the heart.
    d. Arteries leading into the heart.
    e. Left Auricle which receives purified blood from the lungs.
    f. Left Ventricle, better seen on opening second fold of heart, and which pumps the purified blood into the
    g. A-or-ta, or main artery leading from the heart and sending pure blood to the body.
36. Lower or under view of heart.

Closing heart and lung folds and lifting, discloses:

38 Right Kidney.
39. Left Kidney, which opens to
40. Urinary gland and duct extending downward to
41. Bladder.

Directly behind the kidneys is

43. Pharynx, a muscular canal lying directly in front of the back bone and at the entrance to the Oesophagus.
44. Oesophagus or gullet.
45. Stomach which unfolds showing the interior and the pyloric orifice when the digested food passes out. To the left is
46. The Spleen, about which little is known.
47. The Pancreas or sweet bread, which secretes a fluid that aids in digestion.
48. The Duodenum or upper portion of intestine. This also opens or unfolds, showing its interior and that of the Pancreas.
49. Small intestine.
50. Junction of large and small Intestines. This too opens and shows the interior connection and also a sac called the Caecum or blind intestine, ending in a short tail or veriform appendix. The use of this part is unknown to medical science.
51. Ascending Colon.
52. Transverse Colon.
53. Descending Colon.
54. Junction of Colon and Rectum and location of the Sigmoid Flexure.
55. Rectum which is here shown passing behind the bladder.
56. Liver, below and behind the stomach and lying mainly on the right side of the body. Lifting it we see
57. Inside view of Liver with
58. Gall, Bladder and duct, and *p.* the portal vein which takes up the blood from the Liver.
59. The Trapezins muscle or great muscle of the neck and shoulder.
60. Trachelo Mestoid muscle, an important muscle connecting the trachea or windpipe with the bones of the head.
64. Coccyx or lower portion of back bone.
65. Pelvis or hip bone.
66. Femur or thigh bone.



View of head, with Skull and Flesh removed, showing contents of the cranium and muscles of the neck.

INDEX.

isitiveness.....Love for Accumulation of Riches or Prosperity.
ableness.....Ability to Win Others' Confidence.
entiveness.....Appetite for Food and Drink.
tiveness.....Sexual and Social Impulses.
robativeness....Regard for Popular Sentiment.
volence.....Sympathy for Humanity.
tiveness.....Capable of Combining.
ulation.....Ability to Calculate correctly.
nality.....Ability to Reason a Proposition.
tiousness.....Indisposition to Take Risks.
r.....Ability to Determine Color correctly.
bativeness.....Love for Encounter, Debate or Dispute.
parison.....Ability to Analyze and Illustrate.
jugality.....Love of Companionship.
scientiousness..Recognition of Duty and Principle.
structiveness...Inventive Skill.
tinuity.....Love for Society.
tructiveness.....Attitude towards Punishment or Revenge.
ntuality.....Love for Information and Experiment.
nness.....Tenacity and Perseverance.
ndship.....An Attachment to an Intimate Acquaintance.
pe.....Disposition to Minimize Trouble.
man Nature .Ability to Read Character by Conversation with
ersons.
ality.....Imagination, Love of Poetry.
itation.....Ability to Mimic or Imitate.
dividuality.....Whether Close Observer or not.
habitiveness.....Love of Home.
nguage.....Ability to Acquire Language.
cality.....Memory of Places and Circumstances.
irthfulness.....Regard for Wit, Ridicule and Repartee.
der.....Disposition to have Everything in Its Place.
rental Love.....Attachment for Children.
cretiveness.....Disposition towards Cunning, Secrecy, etc.
lf Esteem.....Regard for Individual Character.
ze.....Accuracy in Guessing Proportions.
irituality.....Faith in the Supernatural.
blimity.....Love of Travel, Vivid Emotions.
ime.....Ability to Remember Occurrences.
une.....Ability to Acquire Music.
eneration.....Religious Fervor.
itativeness.....Love of Life.
Veight .....Ability to Judge Weight.

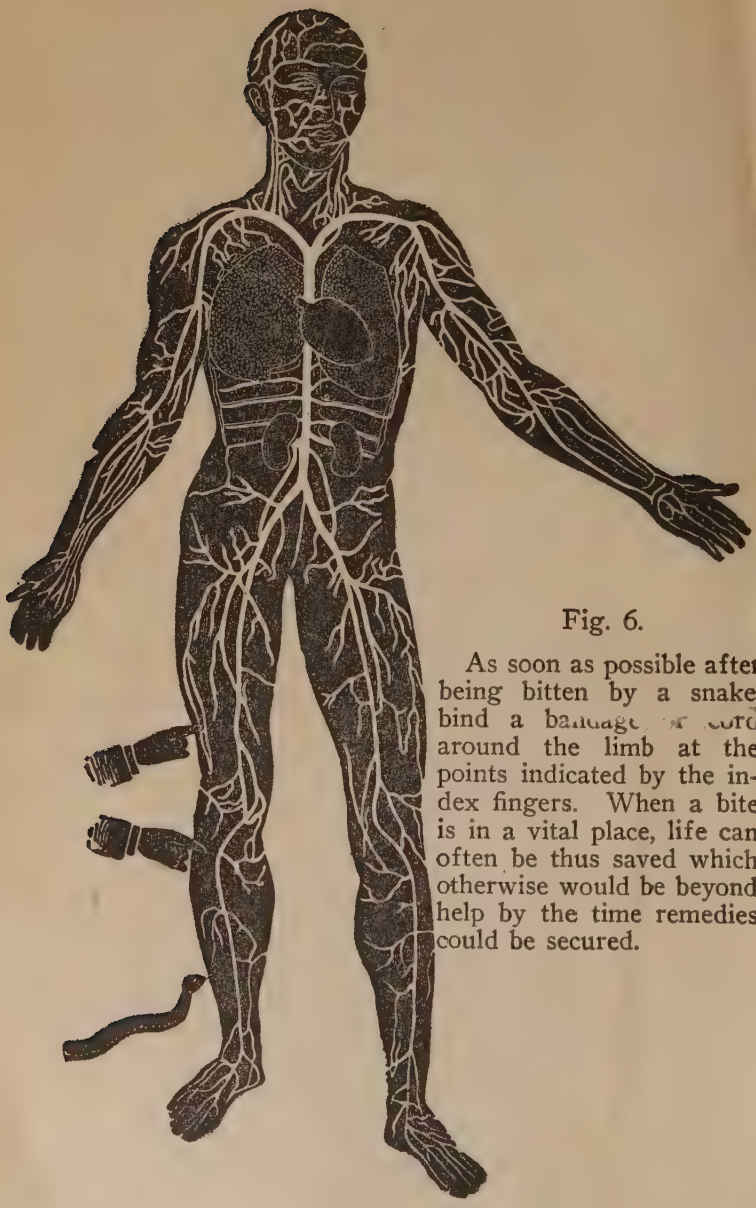


Fig. 6.

As soon as possible after being bitten by a snake, bind a bandage or cord around the limb at the points indicated by the index fingers. When a bite is in a vital place, life can often be thus saved which otherwise would be beyond help by the time remedies could be secured.

DIVISION TWO.

ACCIDENTS AND EMERGENCIES.

SNAKE BITES.

Deadly snakes are generally distinguishable by the *thinness* of the neck, immediately behind the head, and by their having only two teeth in the upper jaw.

Remedies—The first object to be attempted is arrest of the circulation of the poison. A handkerchief, a rope, or anything else to serve the purpose, should be tied tightly round the limb, between the wound and the heart. While this is being done, if possible a second person, or the patient, should extract the poison by forcibly sucking the wound. No danger attaches to the person doing this so long as the poison does not come in contact with a cracked or raw surface or a hollow tooth and is not swallowed.

Kerosene Oil—KEROSENE OIL IS A NEVER FAILING REMEDY FOR THE CURE OF THE BITE OF SNAKES AND ALL OTHER POISONOUS REPTILES. See page 626 for its use.

2. Alcohol, in any of its forms, brandy, whiskey, gin, etc., should be drunk largely by the patient. Let him drink it freely, a gill or more at a time, once in fifteen to twenty minutes (or small doses oftener), until some symptoms of intoxication are experienced by the patient.

3. *Onions are a speedy and an effectual cure. Patients in the very agonies of death have been cured with them.* Pound and apply them raw; followed by fresh applications as soon as a disagreeable odor occurs. In dangerous and critical cases the whole person should be enveloped in this preparation of onions, then bathed with tepid water and renewed as often as the unpleasant odor is produced.

4. *Saleratus is a positive cure for the bite of snakes, and should be used as follows:* Moisten and bind it on the wound; then dissolve more, and keep the parts wet with it for a few hours. Also take a tablespoonful of saleratus-water every hour, internally, until five or six doses have been taken. This should be prepared by adding a teaspoonful of saleratus to half a pint of water. If any considerable time has elapsed after the bite, and before the application has been made, a small incision of the flesh should be made with a knife across the wound, in order the more readily to admit the solution into the wound.

5. Lard is also a superior remedy. Bind it on the wound; take a tablespoonful every half hour, in a liquid state, until six or eight doses have been taken.

6. Black snakeroot (*Sanicle*) is employed by the Indians as a *certain* cure for snake-bites. It is to be taken freely in decoction, and, at the same time, the parts are to be bathed with it.

7. The juice of the fresh leaves of the plaintain if taken in teaspoonful doses every hour, and the leaves bruised and applied to the wound will not only cure snake-bites, but those of spiders, and other poisonous insects.

8. Soft clay mud, applied to the wound, is another good remedy, and has been known to cure. This is considered a most potent remedy by the Indians.

Snake-Bitten Cattle—Cattle or horses are usually bitten in the feet. When this is the case, all that is necessary to do is, to drive them into a mud-hole and keep them there for a few hours. If upon the nose, bind the mud upon the place in such a manner as not to interfere with their breathing.

Tarantulas and Scorpions—Bites of these are to be treated the same as snake-bites. Saleratus is especially good for them. Apply dry then moisten.

Carbolic acid, applied locally, and administered internally, is recommended in cases of poisoned wounds; and according to the following experiments of P. O'Connell D'Oyle, assistant-surgeon R. N., would seem to offer the most favorable prospect of success.

"During the Niger expedition of 1868," writes the above named gentleman, " being in medical charge of H. M. S. *Investigator*, and having to pass through a hostile country, where poisoned arrows and spears were the principal offensive weapons, I procured several freshly-poisoned arrows, and taking some fowls, I stripped the feathers from their thighs, and ran the heads of the arrows through their most fleshy part. The arrow was allowed to remain in the wound rather more than one minute—in some instances as long as ninety seconds. As I withdrew the arrow I poured liquefied, undiluted carbolic acid into the wound, taking especial care to make it come into contact with every portion of it. A small bandage was now applied over the wound, and the fowls isolated. On one-half of the fowls inoculated no carbolic acid was used, and I found every one of them died in a space of time varying from one to twelve minutes. On the other hand, those I used the acid with lived, and seemed not to suffer from the effects of the poison, although a great deal of discoloration was visible around the wound for several days. This gradually disappeared."

STING OF INSECTS.

Sting of Gnats—The disagreeable itching occasioned by the sting of these insects may be removed by spirits of ammonia, or by

immediately rubbing and washing the parts affected with salt water.

Spider Bite—Catnip or plantain leaf *is a prompt and effectual remedy* for the cure of the bite of spiders and other insects. Bruise the leaves and apply them to the wound. At the same time give internally every hour for six hours teaspoonful doses of the juice of the plaintain leaf.

Mosquitoes—These may generally be prevented from troubling in the night, by taking the precaution to rub soap on the hands before retiring. This is said to be a certain remedy. Honey is also good, but from its sticky nature is more disagreeable than the soap. Diluted carbolic acid is, however, the surest protection against insect irritation. The hands, face, and other exposed parts, should be washed with a weak solution. The application of lemon juice will also afford relief. Oil of pennyroyal in glycerine is very efficacious.

Flea Bites—Indigo, moistened and applied, will give relief in the bites of these little pests; or, wet the "bluing sack" and apply it. Soda, moistened and applied, is also good.

Sting of a Nettle—Rub the part affected with balm, rosemary, mint, or any other aromatic herb, and the smart will soon cease. Sage leaves are also efficacious.

Bee, Hornet, etc.—1. Should you be stung by a bee, wasp, hornet, or other insect, bathe and bind on the parts a strong solution of equal parts of salt and baking powder or saleratus. This will immediately arrest the swelling, and relieve the pain.

2. The common onion is another remedy for the same purpose. A piece is to be cut off, and at once placed on the wound. Dr. Hill of Philadelphia uses no other remedy for stings. If the pieces of onion are changed every few minutes, the pain, he says, "will immediately cease."

3. Two or three folds of flannel, dipped in hot lard, will generally remove the pain and swelling occasioned by the bite of insects.

If the above remedies are not at hand, make a thin mortar of clay-earth, and apply. This is an old Indian remedy but a good one.

Accessory Measures—When stung by an insect, examination should be made for the sting, as this is often left in the wound. It must be carefully extracted by the fingers or a pair of fine-pointed forceps. If the sting has entered the skin perpendicularly, the pressure of a small key may dislodge it; the center of the hole being placed over the wound, and sufficient pressure used, when probably the sting will be squeezed out. The wound may then be sucked to extract the venom.

LOCK-JAW.

Sometimes this disease arises without any previous injury,

more especially in warm climates, and near the sea. Robust, vigorous, middle-aged men are more liable to it than others.

In the majority of cases lock-jaw comes in consequence of stabs and punctures in tendinous parts, in the palms of the hands and soles of the feet; and this frequently when the wound heals kindly.

Symptoms—The muscles of the lower jaw become contracted and hard; at length the patient cannot open the mouth at all. A difficulty of swallowing succeeds, resembling hydrophobia. The muscles of the neck and back, and, indeed, of the whole body, become successively affected with violent spasms. The symptoms are sometimes rapid, at others slow in their progress. If the patient survives the fourth day, there is a chance of his recovery.

Remedies—1. Moisten a paper of fine-cut tobacco, and apply to the stomach. If plug tobacco is used, it should be first softened by warm water, before it is applied. It relaxes the muscles, producing vomiting, and thus relieves the patient. *This simple remedy has saved many patients, when they were considered beyond the hope of recovery.*

2. The speedy application of the spirits of turpentine, to the face and neck and along the spine, will often give great relief. Also, pour a small quantity of warm turpentine into the wound. This will serve to relieve the spasms, and thereby cure the patient.

3. Many Eclectic physicians regard the tinctures of lobelia and cayenne pepper combined as *one* of the *safest and best* remedies in use for the cure of lock-jaw. Equal parts of them are to be given, in doses of a half teaspoonful each. Repeat every fifteen minutes, until relaxation is produced.

As the jaws are set and the teeth closed, the best way of getting the medicine down is to hold the cheek at the corner of the mouth loose from the teeth, and if the case is a bad one, chloroform should be given by inhalation, to relieve from spasm, five or ten drops, in sirup, may be given internally; then pour the medicine from a spoon between the teeth and cheek, and it will immediately find its way to the throat and afford relief.

Accessory Treatment—The patient should be kept in a dark room, free from noise or excitement, and his strength must be sustained by strong tea or broth of meats, administering them by injection if he cannot swallow. The injured part must have a discharge kept up from it; and, in obstinate cases, means should be used to keep up a moderate degree of perspiration.

To Prevent Lock-jaw—1. Pour some turpentine into a tin cup, and hold it over a lighted candle, or the fire, until it boils. It boils at so low a temperature, that it will not burn when applied to the skin. Make a swab by wrapping soft muslin or linen round a stick. Dip this in the turpentine and apply it to the wound, rubbing it in carefully for some time. Apply it as warm as can be borne.

2. The following is another very effective means for the same purpose: Make a strong lye from ashes, and apply as warm as can be borne. This will prevent it even when there are strong symptoms of its approach. When the wound is upon a limb, immerse it in the lye; if upon the body, apply it by means of flannel cloths. This remedy has even been known to *cure* cases of lock-jaw. A captain of a vessel was cured of a severe attack of lock-jaw by bathing the part in lye as hot as could be borne.

Nail in the Foot—To obtain relief from the terrible effects which sometimes take place from running a nail into the foot, take peach leaves, bruise them and apply to the wound. Confine them in their place by a bandage and the cure is accomplished. Renew the application twice a day, if necessary; but one application is generally sufficient. Both men and animals have been cured in a few hours when they were apparently on the point of having the lock-jaw.

BURNS AND SCALDS.

Remedies—1. A liniment composed of equal parts of lime-water and linseed oil, is a *superior* application for burns. Lime-water alone is *excellent*.

2. Dissolve two ounces of alum in one pint of hot water, saturate cotton cloths with this solution, and keep the burn well wrapped in them. The pain will *quickly* cease, and the process of healing will soon commence.

3. Sprinkle the burned surface with common baking soda and cover it with a wet cloth. When the burn is only superficial, the pain will cease immediately, and but one application is needed; where the injury extends deeper, longer time and more applications will be required. This is a speedy and very effective cure for burns. For the mode of using it in connection with cosmoline in dangerous cases, see "New and Favorite Remedy," at the close of this article.

4. The following are good remedies: Tea leaves, steeped and applied; the white of an egg, applied by means of a feather brush, or wisp of old muslin. As soon as the first layer dries, another should be applied. *Oil of peppermint will extract* fire the *moment applied and cure the burn. Syrup or molasses applied* to the burn is an excellent remedy and affords instant relief. *The application of common indigo bluing will extract fire almost instantly.* Dip a cloth in the bluing and apply to the burn.

When the clothing of a person catches fire, throw him on the ground and roll him in a carpet rug or bedquilt to extinguish the flame. If these articles are not at hand, then take your coat and use it instead. Begin the wrapping at the neck and shoulders, so as to keep the flame, as much as possible, from the face and throat.

For an extensive burn or scald, there is, perhaps, *no better remedy* than pure hog's lard. If you have not the pure article, it can be prepared in the following manner: Take a cupful of the best lard and put it in a vessel of hot water, boil a few minutes, stirring at the same time, until all the salt and alum that were put in to bleach it have been washed out. Then allow it to cool until the floating lard hardens; then collect it and put it in a bowl, which, in turn, is placed in a vessel of hot water on the stove, and kept there until the water in the bowl has been driven off. The bowl of lard is heated by surrounding water to prevent cooling. It can then be put away in suitable vessels, until required for use. Apply once a day.

For a bad burn, when the skin is removed, cover the part with white lead. Another excellent dressing is, a fine quality of cotton wadding applied to the burn, sprinkled occasionally with a weak solution of carbolic acid to remove the odor. Let it remain until it drops off.

Kerosene Oil for Burns—This remedy is now being extensively used for this purpose, and producing the best of results, though there are occasional cases where the texture of the skin of the individual is such that this remedy is not well adapted to him; yet this seldom occurs.

A New and Favorite Remedy—Cosmoline is a new and important remedy for burns and scalds. In severe cases the following method of procedure should be adopted: To a quart of warm water add one-half pound of baking soda. Wring out of this old cotton cloths, and apply luke warm to the burnt or scalded surface. Continue their application for two or three hours, frequently changing the outside cloths. This will soon relieve the pain. After having used this as above directed, take pieces of old linen or cotton, and, after first wringing them out of warm water, spread on them the cosmoline, with a knife, until the cloths are entirely covered with it, and apply to the burnt surface, the other applications being removed, and cover all again with damp cloths of several thicknesses. Or, what would probably be better, after covering the cosmoline with one thickness of cloth, wrap the entire dressing with raw cotton, to exclude the air. The cotton should be kept on until the parts are healed. If the weather is very warm, the cosmoline dressing should be renewed twice a day; otherwise, every other day will be sufficient. This remedy is reputed to be unsurpassed for the cure of burns and scalds.

The above are among the better remedies, commonly employed for the cure of burns and scalds. We present a large number of them, from the fact that it often happens that one remedy is at hand and ready for use, whilst the others cannot be procured without difficulty, or the loss of much valuable time.

FAINTING-FIT.

This is a loss of volition and muscular power, with partial or complete loss of consciousness, due to defective nervous power.

Causes—*Debility*, from constitutional tendencies, or from loss of blood or other animal fluids; emotional disturbances—fright, sudden joy or grief, hysteria, etc. Many persons faint on seeing blood or a wound.

Treatment—Always immediately place the patient in a horizontal position, with his head as low as, or even lower than, the body. If you leave the patient sitting up, or even with a pillow under his head, he may die. If he is sitting in a chair, a good plan is to always tip him right over back in his chair, on the floor. Usually, by the time his head reaches the floor, he will be revived. Remove everything tight from around the throat and chest. Sprinkle a handful of cold water over the face, neck, and chest, wipe it off, rub the limbs with your hands, and slap the surface of the skin with the open hands. Let the patient smell of camphor, and give a drop of it in a few drops of water. Admit fresh air freely.

In choking, and fainting of every kind, the immersion of the feet in warm water will restore the patient.

Some people manifest a strong disposition to faint. In such cases, a few drops of the spirits of camphor, will give very speedy relief.

In lifting or moving a person when in a fainting condition, always keep the head lower than the body. Let patient inhale a little aqua ammonia; it will usually arouse him.

VOMITING SICKNESS (Vomitus).

Causes—Improper food, or too large a quantity; a disordered condition of the digestive functions; pregnancy; disease or irritation in other organs, as the brain, kidneys, uterus, etc.; cancer or ulcer of the stomach; mechanical obstruction of any part of the intestinal canal; morbid states of the blood. It also occurs in most of the eruptive fevers.

Remedies. 1. *The most severe cases of vomiting can be speedily cured by simply applying a mustard poultice or plaster to the stomach.*

2. *Very obstinate and apparently incurable cases of vomiting can be relieved at once with either corn or oat meal*, prepared in the following manner: parch a quantity perfectly brown, make into coffee and give to the patient to drink every few minutes.

3. Cinnamon bark tea will cure vomiting in 5 or 10 minutes.

4. Peach tree leaves will cure vomiting very quickly. Bruise the leaves and add cold water to them. Give this occasionally as a drink. Frequently one draught is sufficient.

5. The following is well adapted to the more inveterate cases of this difficulty: Take lime, slacked or unslacked, one-half ounce; white sugar, two ounces; water, one-half pint. Mix and let stand two hours. Pour off the clear liquor, and to this add two-thirds teacupful of milk. This will be kept on the stomach when nothing else will be retained.

It should be given, in tablespoonful doses, every twenty or thirty minutes. It should be remembered that an addition of a teaspoonful of cooking soda to every quart of milk not only prevents it from becoming sour, but renders it much more digestible.

For vomiting in "Morning Sickness," see the article under that head.

6. One of the best remedies for nausea and vomiting is carbonic acid water as obtained in any of our mineral waters charged with this gas; let the patient drink a wineglassful every fifteen minutes, and if vomited, give it immediately again. Any mineral water, either Bethesda, White Rock, or Apollinaris, as obtained in any drug store, is charged with this gas.

Accessory Means—Small pieces of ice placed on the tongue are very grateful, and tend to allay the sickness. The diet should be simple, nourishing and non-irritating. Beef tea is, probably, most suitable, and may be given every one to three hours, in small quantities, till other food can be borne. In many cases soda-water and milk, in equal proportions, given in small quantities, freshly mixed, can be retained and digested. The stomach will often retain bland liquid diet when it would reject any other.

POISON VINE, POISON OAK, AND POISON SUMACH.

Remedies—1. *Mix a small quatity of starch with glycerine, sufficient to form a thick paste, and apply to the poisoned parts. One application is generally sufficient to effect a cure.* If not, repeat on the following day. Before this application is made, bathe the parts in very hot water, just near enough the boiling point not to scald the flesh.

2. But, as this remedy may not always be at hand, I will give others: Baking soda, or common washing soda, will remove this difficulty. Add sufficient water to it to form a paste, and apply thoroughly once or twice a day to the part poisoned. It will usually cure in two to four days.

3. An application of blue vitriol is recommended as an effective remedy. It is made by adding one-half teaspoonful of vitriol to two-thirds of a teacupful of water.

4. Sweet oil is regarded as an antidote to this, as well as to most other vegetable and many animal poisons. Though it may not act so promptly as some others, yet it may be relied on. It is to be taken freely, two to four tablespoonfuls every two hours dur-

ing the day, until a pint has been taken; and, at the same time, apply externally, and cover the parts with thin muslin.

5. The following is from Prof. Bundy, of Oakland, Cal., in which State poisoning from poison oak is of frequent occurrence: "Take of the fluid extract of Grindelia Robusta, 2 drachms; glycerine, 2 ounces. Mix. Apply to the affected part, three or four times daily. This is a new remedy, and is a specific for poison oak poisoning; but, as it may not always be obtainable, I give another: A strong solution of borax, frequently applied, is perhaps next equal in efficacy to the Grindelia. Another, and *a good one,* is the Tinc. of Lobelia applied to the part."

CRAMP IN THE STOMACH.

Symptoms—Severe, pinching, gnawing, or contractive pains in the stomach, generally occurring after taking food.

Causes—Highly-seasoned or indigestible food; stimulants, coffee, and tobacco; long fasting; exposure to cold or damp, etc. It is usually but a symptom of indigestion.

Remedies—*This distressing disease can be speedily and thoroughly cured with hot water and sugar, as follows:* Take a teacupful of hot water, and add to it a heaping tablespoonful of sugar. Drink it as hot as possible. In some cases it may be necessary to repeat the dose in twenty to thirty minutes; but it is seldom that more than one will be needed.

2. A strong decoction of prickly ash berries, when they can be procured, will usually afford relief.

3. Another means is to place a mustard poultice on the stomach and let it remain until considerable redness is produced. Then follow this with a hot fomentation of hops or tansy.

4. If a patient is so situated, at any time, that no remedies can be procured, he should immediately apply friction over the stomach. This rubbing should be continued until a high degree of heat is produced, and it will often afford effectual relief.

5. Hot peppermint tea with about as much common soda added to it as would cover a nickel is very good indeed.

Accessory Treatment—In severe cases, two or three folds of flannel, wrung out of hot water, and applied as hot as can be borne; in mild cases, warmed dry flannels.

The patient should shun all articles which excite attacks of the disease, and live on plain, easily digested food, spend his time in the fresh air and sunlight, and take regular, active exercise.

POISONS AND THEIR ANTIDOTES.

When poison has been taken, the first thing to be done is to excite vomiting. Then some remedy may be given which will neutralize or destroy the action of the poison.

Vomiting can generally be produced by drinking a large quantity of tepid water, and then tickling the throat with the finger or a feather. If this fails, a tablespoonful of powdered *mustard* in a glass of warm water may be given, or half a teaspoonful of *ipecac*, or a teaspoonful of *sulphate of zinc* in half glass of water, may be given. Generally the tepid water and tickling the throat will be sufficient, if the patient drinks rapidly all he can. Where a stomach-pump is at hand, employ it in the first instance.

Poisons which Occasion Vomiting—As a general rule, after poisons that cause vomiting, pain in the bowels, and purging, give chalk, magnesia, fresh milk, the whites of eggs, sweet oil, or any other oil or butter. After poisons that produce sleepiness or delirium, give emetics and stimulants, such as camphor and strong coffee, and keep the patient awake. When it is not known what the poison is, give magnesia, chalk or charcoal, equal parts, mixed in warm water; also, sweet oil.

Arsenic—When a person has taken arsenic, he soon perceives a burning heat and a violent pricking pain in his stomach and bowels, an intolerable thirst, and an inclination to vomit. The matter vomited is greenish or yellow, and streaked with blood. The tongue and throat feel rough and dry; and, if proper help be not soon administered, the patient is seized with great anxiety, hiccoughing, faintings, and coldness of the extremities. The urinary organs are occasionally affected with violent burning pains and suppression of urine, followed by convulsion, cramp, clammy sweat, delirium and death.

Antidotes—1. Excite vomiting as soon as possible, by any of the above measures, also give warm milk, equal parts of sweet oil or the white of eggs. Either of the above articles, or any two of them, should be given as soon as possible, in connection with the measures to excite vomiting, and should be repeated occasionally afterward.

2. Give lime water, if you cannot get carbonate of iron. If you can, give half a teaspoonful in water. Give also flax seed tea.

Tartar-Emetic (*Antimony*)—Give tannic acid; or a strong decoction of green tea; or of oak bark. It will not be necessary to give the mustard, or any other emetic, as the antimony will produce sufficient vomiting. Promote vomiting by giving freely of warm water and sugar, etc.

Antimony—Give the same antidotes as for tartar emetic, as it is the same drug.

Corrosive Sublimate, Verdigris and Lunar Caustic—Among the symptoms from taking verdigris, lunar caustic and corrosive sublimate, will be noticed the following: The tongue becomes dry and parched, while if there is not severe vomiting, there will be fruitless efforts to vomit. There will be frequent black

poisoning ,burning in the throat, and intense pain in stomach and bowels.

Verdigris—(*Copper*)—Poisoning by copper is rare, yet occasionally a case is met with where it is accidental, as by getting the verdigris off of old copper. The symptoms are headache, cutting pain in the bowels, cramps in the legs and thighs, the pulse being small, quick and feeble. There will be a metallic taste in the mouth and coppery eructation.

The Corrosive Sublimate—Mix the whites of a dozen eggs with two pints of cold water, and give a glassful of the mixture every two minutes till the stomach can contain no more. If there are not eggs enough at hand, make up the deficiencey with milk. Wheat flour, mixed with water, is a good remedy. Use the stomach-pump, if it is at hand. Drink freely of warm water.

Lunar Caustic—Used in hair dyes and indelible ink. The antidote for this violent poison is common salt, which acts promptly and efficiently. It decomposes the poison and creates a chloride of silver which is inert. A strong brine should be swallowed as soon as possible, and afterward milk and castor or sweet oil.

Nitrate of Silver—This is the *lunar caustic*, the same as the above.

Strychnine—The first symptoms are a feeling of weight and weakness in the limbs, with unnatural rigidity or slight spasms, when motion is attempted. When its effects are fully developed, there are frequently recurring spasms, the entire body being convulsed. and the person suffering intense pain. These continue to increase in frequency and intensity, until it would seem impossible for the sufferer to live, and, finally, death ends his misery.

Antidotes—Always use chloroform to quiet the spasms, sprinkle it on a handkerchief, and let the person inhale it freely. Give freely of any fatty matter, sweet oil, lard, lard-oil, etc., a pint at a time, and have it vomited each time by passing the finger down the throat. Give two teaspoonfuls of baking soda dissolved in a little water. One dose is said to be a certain antidote for strychnine.

Matches—Children sometimes eat phosphorus from the ends of matches, and are poisoned. For antidotes, see "Phosphorus."

Oil of Savin—This substance in large doses inflames the stomach and bowels. Give olive oil in tablespoonful doses, and empty the stomach with emetics. Give ether in half teaspoonful doses in camphor water.

Iodine and Iodide of Potassium—Give starch or wheat flour, mixed with water.

Sugar of Lead—Excite vomiting with ground mustard and give epsom salts or diluted sulphuric acid. Castor oil is good; also give milk freely.

Shell Fish—Clams, mussels, etc., are sometimes poisonous.

Excite vomiting, give powdered charcoal or strong coffee without milk or sugar.

Alcohol—The effects of poisonous doses of alcohol may be counteracted by showering the head and body with cold water, when the body is hot. If feet and limbs are cold put in hot water. Also cause vomiting as soon as possible. Use electricity.

Belladonna, Hyoscyamus (*Black Henbane*), **Stramonium**—These are all narcotics, and when accidentally taken in poisonous doses, the treatment is the same as for poison by opium. Strong coffee is said to counteract the effects of these articles. Remedies must be used at once, or death is sure to ensue. Keep the patient in motion; dash cold water on the head.

Spanish Flies, Potato Flies—Symptoms are acrid taste, burning heat in the throat, stomach and bowels, bloody vomitings, colic, purging, retention of urine, convulsions, death. Take large draughts of olive oil, thin gruel, milk, starch injections, linseed tea, laudanum, and camphorated water.

Aconite—Give an emetic of ground mustard or sulphate of zinc, or use the stomach-pump, instantly, and then give stimulants, as brandy, gin, whisky, rum, etc.

Ammonia—Spirits of hartshorn, or ammonia, is a well-known strong irritant. When taken, give at once table vinegar, by the teaspoonful, till the pain lessens. Lemon-juice will also answer. Olive oil will afterward be beneficial. Emetics should not be given. Give any oil, it forms a soap in stomach.

Opium—The symptoms of poisoning by opium, or any of its preparations, are unnatural stupor and disposition to sleep, with a very marked apathetic countenance. The person does not like to be disturbed, and would rather die than live. When he cannot be aroused by shaking or dashing cold water in the face, there is danger, and especially if the breathing is stertorous or snoring. Always examine the pupil of the eye, and see if it is contracted, if not, the poison taken is not opium.

1. When an overdose of opium, or any of its preparations, has been swallowed, the stomach should be evacuated as speedily as possible. To effect this, a teaspoonful of ground mustard seed, or as much tartar emetic as can be held on a five-cent piece, or as much *ipecacuanha* as can be held on a twenty-five cent piece, should be mixed in a tumblerful of warm water, and one-half given at once, and the remainder in twenty minutes, if the first has not, in the meantime, operated. In the interval, copious draughts of warm water, or sugar and warm water, should be drunk.

2. The use of the stomach-pump, in these cases, is of the greatest importance, and should, if possible, be resorted to without delay. After most of the poison has been evacuated from the stomach, a strong infusion of *coffee* ought to be given; or some one of the vegetable acids, such as *vinegar* or *lemon-juice*, should be administered.

3. The patient should be kept in motion, and salutary effects will often be produced by dashing a bucketful of cold water on the head. *Artificial respiration* (see "Drowning") ought to be established, and kept up for some time. If the extremities are cold, apply warmth and friction to them. After the poison has been evacuated from the stomach, stimulants, as warm wine and water, may be given, to keep up and sustain vital action.

Phosphorus—First excite vomiting; then give milk and magnesia, followed by slippery-elm tea, flax-seed tea, gum-Arabic water, etc. Avoid all oils and oily drinks.

Citric Acid, Acetic Acid, Tartaric Acid—For these poisons, give chalk-magnesia, flax-seed tea, gum-Arabic water, lime water.

Carbolic Acid—Oil, glycerine, milk, flour and water, white of eggs, magnesia, and flax-seed tea, may be used.

Prussic Acid—This is the most deadly of all known poisons. One drop of the *pure acid* will cause immediate death. Give water of ammonia or hartshorn, one part diluted with six parts of water, freely. Let the patient smell camphor or ammonia. And shower the head and spine with cold water and use electricity.

In poisoning by any of the above acids, after they have been neutralized by their appropriate antidotes, the following mucilaginous drinks should always be administered: flax-seed, gum-Arabic and slippery-elm.

Lye—The remedy is vinegar, or oil. Vinegar will convert the lye into acetate of potash, and any of the oils will unite with it, and form soap; and neither the acetate of potash nor soap will materially injure the stomach.

Saltpetre—Induce vomiting by lukewarm water, and by tickling the throat with a feather; but avoid irritating the stomach with the ordinary emetics. Give flax-seed tea or gum-water.

Ergot, Black Hellebore, Veratrum (*American Hellebore*), **Fox-Glove, Gelseminum** (*Yellow Jessamine*)—Evacuate the stomach with a stomach-pump, or an emetic composed of four or five grains of tartar-emetic, fifteen or twenty grains of sulphate of zinc, or large doses of mustard and water, repeated every quarter of an hour until the full effect is produced.

Sweet milk is also an antidote to this poison, and should be given freely. It is said to be a specific.

Nux Vomica (*Dog-Button*)—This is strychnine. Remedies, the same as strychnine.

Mercury—The same antidotes should be used for this, as those employed for corrosive sublimate; which see.

Oxalic Acid, Sulphuric Acid (*Oil of Vitriol*), **Nitric Acid** (*Aqua Fortis*), **Hydrochloric Acid**—The symptoms of the above poisons are, acute pain in the throat, stomach and bowels, with an acrid taste and frequent vomiting, together with copious stools more or less bloody, and sometimes difficulty of breathing.

The pulse is irregular, and, while the thirst is excessive, drinking increases the pain.

Oxalic Acid—Give powdered chalk mixed with water, or magnesia, and excite vomiting by drinking freely of warm water. Do not give saleratus or potash in any form A mixture of lime-water and sweet oil is very valuable.

Oil of Vitriol (*Sulphuric Acid*)—In case of poisoning from acid, give immediately soapsuds, wood-ashes mixed with water, carbonate of magnesia, chalk, or lime-water, and let the patient drink freely of milk. Oil is also useful. No water must be taken, it creates intense heat in the stomach.

Nitric Acid (*Aqua Fortis*)—Give freely of calcined magnesia in a little water; or chalk; strong soap and water is an efficient remedy, and is always on hand. If nothing better is at hand, give freely of a mixture of wood-ashes and sweet milk. Aqua ammonia in half teaspoonful doses in wine glass of water is good.

Hydrochloric Acid (*Muriatic Acid*)—Soda, lime, potash, magnesia in milk are antidotes to this poison. As soon as the acid is neutralized, give flax-seed, gum-Arabic, or slippery-elm. Use freely barley water, oily drinks, gruel and milk in large quantities.

Creosote (*Oil of Smoke*), Oil of Tar, Oil of Turpentine—Starch, wheat-flour mixed with water, white of eggs, milk, and mucilaginous drinks, are excellent antidotes; or the stomach may be evacuated, with an emetic or a stomach-pump.

The Compounds of Arsenic, Yellow Sulphuret of Arsenic, Red Sulphuret of Arsenic, King's Yellow, Fly-Powder, Arsenical Paste, Arsenical Soap, Paris-Green, Scheele's Green—Give oils or fats, lard, melted butter, or milk, then induce vomiting with white vitriol; fine powdered iron rust, or magnesia, may be given every five or ten minutes. Mucilaginous drinks should be given as soon as the stomach is evacuated, such as gum-Arabic, flax-seed, or slippery-elm.

Tobacco—The oil of tobacco is a violent poison, and the leaf, when swallowed, causes sickness and often vomiting. This should be encouraged with warm water, after which twenty-drop doses of spirits of ammonia, in a tablespoonful of water, or whisky. Stimulating injections per anus may be given.

Sulphate of Zinc and Chloride of Zinc—The symptoms are, astringent taste, sensation of choking, nausea, vomiting, purging, pain and burning in the throat and stomach, difficult breathing, pallor and coldness of the surface, pinched face, cramps of the extremities, but, with the exception of the chloride, seldom death. For the first, give copious draughts of milk, and white of eggs and water, mucilage, and olive oil. Relieve urgent symptoms by fomentations, and after the vomiting, give castor-oil.

2. For the chloride, in addition to the above, give soda, warm water, in frequent draughts, with the addition of friction and warmth.

KEEP POISON LOCKED UP

Keep poison locked up. The skull and crossbones are not sufficient protection. Every child has a natural curiosity to investigate. Adults, too, need protection. Death from poison taken by mistake is a common coroner's verdict. A separate cabinet for poisons, kept locked, would prevent fatalities.

MOONSHINE

Wood alcohol is putting the skull and crossbones into the present deluge of hootch, so the chemists say.

In eleven months of 1924 there were 390 deaths from moonshine in Chicago, more than one a day. A small portion of the tombstone hootch serves to incapacitate. The medical experts report the effect is more profound and fatal than that of pure alcohol products and after even a few sprees mental deterioration is a common sequel.

How Poison Works—The poisoning from the wood alcoholized bottle is rapid. The first symptom is a gastro-intestinal disturbance, with vomiting and sharp pains in the stomach, followed by a nervous disturbance. Inflammation and sharp pains develop in the nerve endings, followed by degeneration of the nerves with paralysis and loss of use of the muscles. The eye symptom is prominent, and blindness, which in many cases becomes permanent, seizes the victim.

Unconsciousness and coma develop rapidly. In cases of acute poisoning, the victim usually dies without coming out of the stupor.

Ptomain-Poisoning—(Food Poisoning)—Infection of the organism through the medium of the gastro intestinal tract. Catarrhal inflammation of the gastrointestinal tract, dilatation of the stomach, certain diseases, as typhoid fever, enteritis, and peritonitis, and idiosyncracy toward certain kinds of food are predisposing factors. The exciting cause is the ingestion of certain varieties of food which have partly undergone putrefaction such as oysters, ice-cream, sausage, meat, fish, mussels, cheese, etc.

The Symptoms manifest themselves in from 2 to 24 hours after food has been taken. Nervous symptoms, such as chilliness, headache, vertigo, muscular twitchings, hallucinations, imperfect vision, etc., are marked. Nausea, vomiting, diarrhea and often subnormal temperature are present. The heart is feeble and quick and various cutaneous eruptions may appear.

The Treatment consists in the use of emetics and rectal irrigation. If constipation is present, Rochelle salt or solution of citrate of magnesia may be administered. Collapse should be combated by external heat, hot drinks and massaging.

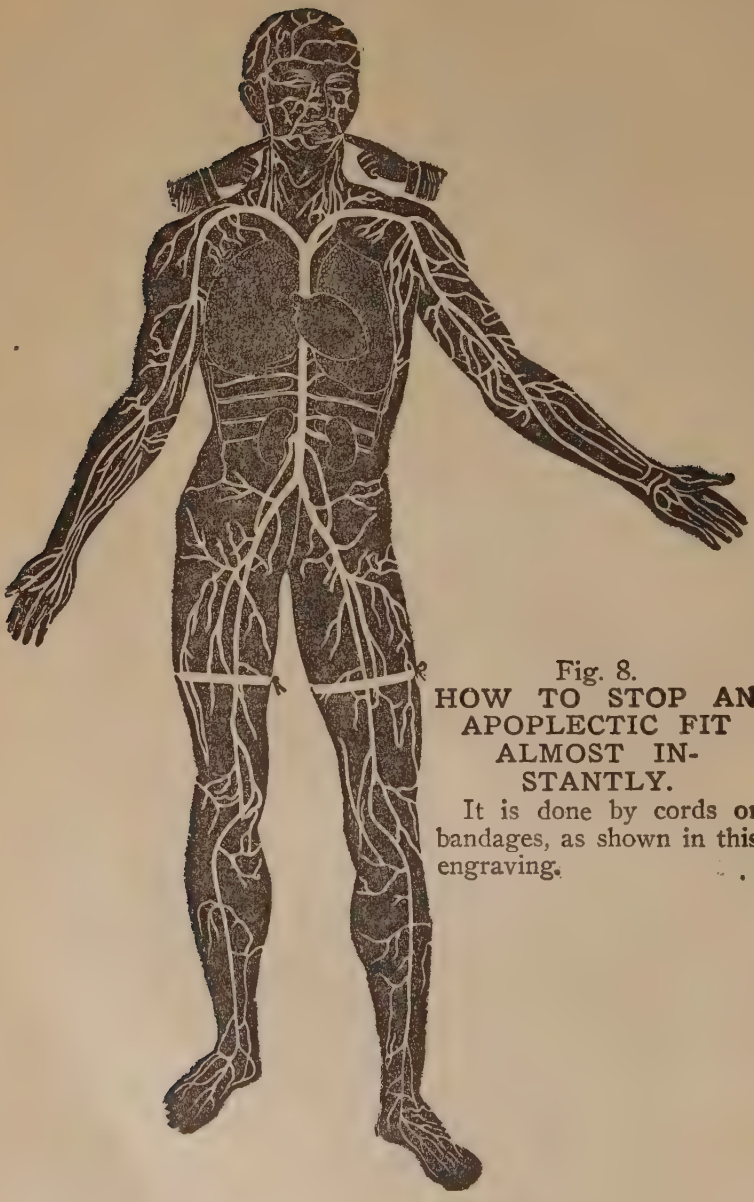


Fig. 8.
HOW TO STOP AN APOPLECTIC FIT ALMOST INSTANTLY.
It is done by cords or bandages, as shown in this engraving.

White Vitriol—This is the same as the above (*Sulphate of Zinc*).

Oil of Bitter Almonds—Give ten to twenty drops of ammonia; or it may be inhaled. Apply cold water to the head. This oil is speedily fatal.

Lead and its Compounds, Acetate of Lead (*Sugar of Lead*), **White Lead, Red Lead, Litharge** all have a sweetish, astringent, metallic taste. The symptoms are manifested by tightness of the throat, colicky pains, violent vomiting, hiccough, convulsions, and death. Take epsom, or Glauber's salts, plaster of Paris, or phosphate of soda. An emetic of sulphate of zinc (24 grs. to ½ pt. of water); apply fomentations if necessary; produce free evacuations of the bowels with castor oil.

APOPLECTIC FITS (Apoplexia.)

This disease is characterized by the abrupt loss, more or less complete, of consciousness, from extravasation of blood (*hemorrhage*) within the cranial cavity.

Varieties—1. *Congestive* apoplexy is an overloaded condition of the vessels of the brain, and at the same time small blood points occur all over the surface of the brain substance. 2. *Hemorrhagic* or sanguineous apoplexy is the most frequent, and consists in the rupture of a vessel, and extravasation of blood in the substance of the brain, or outside the nervous masses. The symptoms are usually sudden, and its development most rapid.

Modes of Attack and Warnings—Apoplexy may come on *suddenly* or *gradually*. The patient may be suddenly struck—falling, at once bereft of motion and consciousness. Such a case is termed *primary apoplexy*. More frequently, however, apoplexy is indicated by well-marked premonitions, which are, chiefly, headache; giddiness, particularly on stooping; fullness and pulsation of the blood-vessels of the head; epistaxis; retinal hemorrhage; sleepiness, with heavy or snoring breathing; transient blindness, loss of memory; considerable difference in the sizes of the pupils of the eye; deafness or noises in the ears; momentary loss of consciousness, with or without indistinctness of speech or incoherent talking; flashes, motes, etc., before the eyes; nausea, vomiting, numbness, or tingling in the hands or feet; unsteady gait; partial paralysis, sometimes involving the muscles of the face, sometimes those of a limb; the patient becomes comatose, and drowsiness gradually increases to perfect *coma* or stupor. This is called *ingravescent* apoplexy, because the symptoms become worse *gradually*, and it is far more serious than a primary case, because we have evidence that the cause of the symptoms is still in operation, and because such a case is always hemorrhagic, and the brain has undergone organic and permanent changes. On the other hand, a primary case may be a congestive variety, and the condition may pass off without any permanently injurious result.

Symptoms—These vary according to the seat and amount of the hemorrhage, and are sometimes so vague that cerebral hemorrhage can only be suspected. Pain in the head, giddiness, faintness, sickness, laboring pulse, succeeded by some reaction, may only be present. In the early stage of an ingravescent case, before the patient becomes comatose, there is great depression in the circulation from the shock to the nervous system; the surface is cold, pale, and clammy, or it may be red and turgid, the veins are engorged and the face assumes a livid hue, and the pulse frequent, small, and weak. The pulse of old people, the ones most subject to apoplexy, is small and feeble, at outset of attack; later it becomes full, slow and labored (passes slowly under the fingers); the surface warm, sometimes preternaturally so, and perspiring; the countenance has a peculiar bloated appearance, and is often congested; the pupils are insensible to light, and usually dilated, although one or both may be contracted; the breathing is stertorous from paralysis of the soft palate; the urine is retained from inaction of the bladder; and the bowels are sluggish. The cheeks are puffed out with a loud noise from the lips, caused by paralysis of the muscles of the face.

One or several of the above symptoms may, however, occur as the consequence of indigestion. Vomiting and headache are more important as indications when they come on suddenly without any obvious cause, and not on first rising in the morning, and the vomiting, or efforts at vomiting, are continued beyond the emptying of the stomach.

This complaint may be distinguished from palsy by the difficult and loud breathing, profound sleep, and the entire suspension of voluntary motion; and when to these we add the absence of convulsions, it will be distinguished from epilepsy; and from intoxication, by the impossibility of temporarily arousing the patient by shouting or any other means, and absence of alcoholic smell.

Apoplexy chiefly attacks individuals of middle or those of advanced age; and it has been observed, that persons of a corpulent habit, and those having a short neck and large head, and who lead an inactive and sedentary life, or make use of full, rich diet, are more liable to it than those of different habits. Men are much more liable than women to apoplexy.

This disease is generally supposed to arise from compression of the brain, caused by an effusion of either blood or serum within the head or cranium, which has given birth to the two distinctive names of serous and sanguineous apoplexy.

But the main cause of apoplexy, doubtless, is disease of blood-vessels. The most powerful predisposing cause is age; hence the increasing liability to it with advancing age. The gradual degeneration or ossification of arteries common to old age renders them inelastic, and as the blood is forced on them by the action of the heart, they give way. Hemorrhage within the cranium is sometimes caused by the bursting of *aneurisms* involving the arteries of

the brain. The idea that increased pressure on the blood-vessels of the brain, as during exertion or rapid movement of the body, is an *originating* cause of apoplexy, is incorrect. The exciting cause is increased blood pressure; but the origin of the trouble is in the actual degeneration of the arteries, the process probably of years, before they can give way. The *predisposing* cause of apoplexy is general bodily unsoundness, which may be especially due to granular disease of the kidney, Bright's disease, or enlargement of the left ventricle of the heart. Apoplexy is almost always the local expression of a general constitutional failure, hence it is classed as a constitutional disease. It often is the result of hereditary tendencies.

Remedies—The patient should be immediately removed to a pleasant, airy, and cool place, and placed in a recumbent position, to favor a return of blood from the brain. All compression should be removed from the neck, and all tight bandages or ligatures. The feet and legs must be immediately immersed in very warm water, in which lye or ashes has been added. This simple process is attended with the most extraordinary effects. I have never known it fail to exert a salutary and decidedly good effect. The feet and legs should remain in the water fifteen or twenty minutes, and friction be then applied to them. The whole surface must also be bathed with a mild tincture of cayenne papper, applied very warm. If the tincture is not at hand, put dry cayenne on a flannel cloth and rub the patient's body with it, and put mustard poultices at pit of stomach and back of neck.

Administer an injection composed of half a pint of soapsuds with half a tablespoonful of salt and a teaspoonful of cayenne pepper. The patient should be covered warmly, in order to excite perspiration. Hot bricks covered with cloths wet with vinegar, may be applied to the extremities to assist in recalling the blood back to its original channels.

Many medical authors regard common table salt as one of the best remedies known in a fit of apoplexy. Many thousands of lives might have been saved by simply knowing how to use salt in this disease. It is seldom that a physician can be procured in time to save life in apoplexy.

It is to be used as follows: Apply the salt wet to the head and temples until returning sensibility admits of swallowing; then give salt water internally until the patient is restored.

Tight ligatures should be applied around the limbs to prevent the blood from returning rapidly in the veins. For the same purpose press firmly with the thumbs on the under edge of the jaw-bones. (See illustration.) The ligatures should be gradually removed.

As a constitutional remedy in the treatment of this disease, the compound sirup of stillingia, with iodide of potash. should be taken daily. To half a pint of the sirup, add twenty grains of the potash

and take a teaspoonful every morning. This can be found at the drug stores.

After a Fit—Should the patient recover from the fit, great and unremitting care must be observed to prevent another attack. The diet should be light, but nourishing; milk, light puddings, cooked vegetables, fish, etc., are extremely valuable; a full animal diet should not be allowed till all fear of a relapse is passed; and stimulants should almost invariably be avoided. Moderate exercise of the muscles is a remedial agent of high value; it tends to promote a more active circulation through the entire system, and, consequently, to diminish the pressure on blood-vessels which a little extra force might cause to give way. If active exercise cannot be taken, frictions performed by a second person, by means of a bath of strong mustard water should be administered, followed by a thorough rubbing, all over the body, but especially the spine and extremities. Use turkish towels or flesh brushes. The cause of the disease should as far as possible be avoided or modified. If much depression exists a little light wine may be used.

Preventive And Accessory Measures—Undeviating temperance in eating and drinking. Physical and mental exertion and excesses of every nature, fits of passion or excitement, sudden changes of temperature, over-heated rooms, warm baths, wet feet, etc., must be uniformly avoided. Errors in diet, exposure to a hot sun, violent emotions, etc., may excite the gravest symptoms in persons predisposed to apoplexy, and may possibly cause a recurrence of the attack.

The neck should be free from all tight cravats; the feet should be kept warm; exposures to cold, and especially to cold feet are dangerous. Sour stomach should always be cured, if possible, as soon as known to exist, which can be done with a few doses of magnesia. The hours of sleep should be regulated not to exceed eight or nine, and the bed should be a hard mattress, using only a small pillow that the head may be kept low. Whenever there is giddiness of the head, cold water, poured on the head and along the spinal column, will be found a very salutary measure. Pure air in the rooms is indispensable. Direct exposure to the sun's rays should be invariably shunned. Sudden turning of the head, to look upward or sideways, should also be carefully avoided, as well as straining at stool. For at least two hours previous to retiring to bed, no food must be allowed to enter the stomach. Constipation must be avoided as straining at stool is liable to precipitate an attack. Indeed, without the most rigid attention to the rules of hygiene generally, it will be a very difficult matter to prevent an attack of apoplexy in those predisposed to it.

CONGESTIVE CHILLS.

These are an aggravated form of common chills and fever, and are sometimes called "Sinking Chills," in medical books styled

Pernicious fever. In this form of the disease, the chill is very much lengthened, and there is great pain in the head, a feeble pulse, vertigo, a sense of weight and oppression of the chest. The hot stage comes on slowly, and is imperfect, the pulse being frequent, small and tense, the countenance anxious, the skin hardly warm, perhaps an internal heat complained of, and little or no thirst, The perspiration in the sweating stage is copious and fetid.

As the disease advances, stupor comes on; the patient lies upon his back, with tendency to slip down to the foot of the bed; the breathing becomes more difficult; the pulse is small, weak and fluttering, or is intermittent, and at last cannot be felt at the extremities; a cold, clammy perspiration, sometimes fetid, covers the body; the face assumes a leaden, deathly hue; the lips are contracted over the teeth, and the patient dies. Death usually happens during the cold stage, and more commonly in the third paroxysm. This is called the *Algia* or cold variety; another variety is the *delirious* which is marked by active delirium; another the Gastro Enteric marked by violent delirium.

In describing the symptoms of this disease, a medical writer remarks, "It commences with a sensation of languor, weariness, disinclination to exercise, and a want of appetite. The chill comes on with a shrunken condition of the extremities, and is not always felt by the patient, and is followed by paroxysms of fever of greater or less intensity. Not unfrequently the patient may be able to move about for some days, but eventually becomes prostrated by an increase in the severity of all the symptoms. The stomach becomes greatly irritated, and the bowels very torpid. The cold stage frequently continues for five or six hours, during which the patient suffers excessively from the irritable condition of the stomach. The tongue varies in its appearance, being coated from a pale-brown to black, but commonly moist; the pulse is weak, and but little increased in frequency above natural. Usually, the attacks manifest themselves every other day with great severity, a light chill being experienced, however, every day. It may commence like a simple fever and ague for two or three days before its pernicious character is developed. A sensation of burning is frequently felt by the patient, who will desire to be placed where he may have the cool air to pass over him, and this will be the case when the parts in which the burning is felt are very much below the ordinary temperature of the body; which will also be the case with the surface of the limbs and body generally. With each successive paroxysm the fever becomes weaker and weaker and the strongest stimulants are no longer of avail to arouse."

Remedies—The chief object of treatment, during the chill, is to produce reaction, or to bring warmth to the patient. For this purpose, give the patient, immediately, a vapor bath, or surround him with bottles of hot water, hot bricks, or stones, enveloped in wet cloths. Make a strong tea of ginger, red pepper, or black pepper,

and give it freely. If these measures do not cut short the chill, give the patient five grains of quinine in a gill of good whisky, and repeat the dose every half hour, until the chill is overcome, and reaction takes place. Then give three grain doses every four hours of the intermission. Warburg's Tinc., an East Indian remedy, is very useful, in half ounce or tablespoonful doses every four hours, *continuing*, at *the same time, the above applications.*

In the second place, during the hot stage, promote perspiration; this is done by giving cooling acid drinks, and removing gradually the clothing, etc., which greatly oppresses the patient at this time.

In the third, or sweating stage, the patient should be wiped dry after it is over, the clothing changed, and sleep permitted. During the intermission, take equal parts of the black-snake root, generally called Virginia snake root, and wormwood, which grows in every garden, made into a tea: it is used with great success in curing this disease. Dose, a wineglassful three times a day. The following preparation is used with the most successful results: Take two nutmegs, and burn or char them over a flame, pulverize them, then add an equal quantity by weight, of dried or burnt alum, and divide the mixture into six powders. Administer one powder every time the chill comes on; frequently, the first dose will effect the cure. For further treatment of this disease, the reader is referred to the article on "Fever and Ague," as the remedies used in this and that disease are adapted the one to the other.

Accessory Treatment—People subject to this affection, as well as to the ordinary chills and fever, should avoid the damp air of the morning and evening, also, exposure to a hot sun; should not take violent exercise; beware of fatigue; during damp seasons, fires should be kept in the sitting and sleeping rooms. The diet during the hot and sweating stage, should be very light. During the intermission, and for some time after a cure has been effected, the diet should consist of nutritious food, as boiled rice, bread and butter, beef-tea, chicken-broth, toast-water, and plain bread-pudding. All high-seasoned, stimulating, or indigestible food, must be carefully avoided.

FITS—INFANTILE CONVULSIONS.

Symptoms—In simple cases there is slight twitching of the muscles of the face, rolling of the eyes, and some difficulty or irregularity of breathing, which soon pass off spontaneously. Severe cases are marked by sudden loss of sensibility, violent movements of the arms, legs, and head, the sides of the nose are pinched and some froth may issue from the mouth; turning of the eyes so that the white is visible, and the pupils almost invisible; pallor or redness of the face; lividity of the lips: clenching of the hands, the

thumb being *under* the fingers; and bending of the great toes upon the soles of the feet. The fit may last for one or two minutes, when it passes off either altogether, or to recur after a longer or shorter interval. The slighter attacks are common to new-born infants.

Causes—The irritation of dentition (teething) or from indigestion, worms, over-feeding with improper food, constipated bowels, a blow or fall; fright; disease of the brain; impure supply of of blood to the brain, as in the eruptive fevers; feeble action of the heart; deficient supply of blood from defective nourishment; suppressed eruptions; powerful mental emotions; worry, overheating, a fit of anger, or indigestion in the nursing mother. A fit may take the place of a chill or ague. More remote causes may be general ill-health of the parents, too early or too late marriage, and inherited taint of constitution.

Remedies—Commence the treatment by making warm applications to the lower part of the body, and lower extremities, or put the lower half of the body into warm water with mustard in it. If the head is hot and the face red, sprinkle the head for a few moments with cold water, especially if the disease has been caused by teething. "If the attack has been caused by eating green fruit, or other indigestible food, let him drink freely of warm water, or give half-teaspoonful of ipecac in warm water as an emetic, then tickle the throat with a feather, so at to cause vomiting; even if vomiting does not ensue, the warm water may benefit the patient. In all cases where the bowels are costive, or you have the least reason to suppose the attack is caused by irritation of the stomach and bowels, or by worms, give a free injection of warm water, and repeat it in one hour, if the bowels do not move freely." (*Ellis.*) The gums should be looked to, and if they appear swollen, or much inflamed and painful, lanced. The most severe convulsions cease immediately after this operation. It sometimes happens that after a convulsion, the child becomes unable to urinate; for which he may be placed in a warm bath, and kept there for ten minutes, and then onions, pounded and slightly warmed, must be placed over the region of the bladder, and parsley-root, or pumpkin, or watermelon-seed tea administered freely.

When a nursing-mother becomes overheated, or violently excited, her blood and milk are thereby poisoned. Under such circumstances, the milk should be withdrawn, and her brain and blood allowed to cool and the agitation to cease, before nursing again, or serious, or even fatal results may ensue.

The quickest and best treatment is ten to fifteen drops of chloroform on a handkerchief and let the child breathe it. It will soon recover consciousness.

Put one drop of the spirits of camphor into two teaspoonfuls of sweetened water, and give a teaspoonful at a dose, and repeat occasionally. This generally affords speedy relief. Essence of pep-

permint, is also a good remedy, used in doses of two or three drops, in sweetened water. Or, if the essence is not at hand, give a weak infusion of the herb.

Preventive—When there is a tendency to convulsions, as shown by a foul tongue and breath, disordered evacuations, with screaming, restlessness, etc., the addition of *lime-water* to the child's milk (a tablespoonful to a feeding-bottle of milk) often acts as a preventive.

BLACK EYE.

1. Immediately after the eye has been struck, with force enough to make it black, apply a cloth, wet with water, as hot as you can bear, in which you must put two teaspoonfuls of sal ammoniac. Keep on applying the water for fifteen or twenty minutes, and the coagulated blood will become thin and pass off into its natural channels, and leave the eye clear of blackness. A bruise on any other part of the body may be treated likewise. Do not put on leeches.

2. Tincture of arnica is an excellent application to remove the soreness of the parts after the discoloration is removed and restore them to their natural condition.

3. An application of brandy is another good remedy to check the tendency to discoloration.

4. The application of raw beef is another very superior means for removing the discoloration, and also for checking the tendency to it, and relieving the pain.

HEMORRHAGE OR BLEEDING FROM THE LUNGS.

This disease is usually preceded by a sensation of weight, fullness, tightness, soreness, heat and oppression, over a part or the whole of the chest, and flushing of the cheeks, and sometimes even chills and fever. A dry cough often precedes the attack or it may only be preceded by a slight tickling in throat.

The following table will enable the reader to determine whether the discharge of blood is from the lungs or stomach:

FROM THE STOMACH.

1. The blood is of a *dark* color.
2. The blood is vomited.
3. The blood is often mixed with *food*, and is *not* frothy.
4. Is preceded by nausea and *stomach* distress.
5. Blood is generally passed *with the evacuations* from the bowels.

FROM THE LUNGS.

1. The blood is of a *bright-red* color.
2. The blood is generally *coughed* up.
3. The blood is generally *frothy* and mixed with spittle.
4. Is often preceded by pain in the *chest* and difficult breathing.
5. Blood is not found in the *stools*.

A patient may spit blood without its coming from the lungs; it may descend from the back part of the nostrils into the throat, or it may come from the throat itself, and even from the mouth.

Patients may have a single attack and never have a return. Hemorrhage from the lungs may be caused by severe exertion in speaking, coughing, violent muscular exertion, tight lacing, very cold or hot air, and diseases of the heart. It is frequently caused by tubercles in the lungs. It is caused often by ulceration eating into a blood vessel when a cough exists. It is often caused by disease of the heart, causing obstruction to the return of blood.

Remedies.—1. A SPEEDY CURE FOR HEMORRHAGE OF THE LUNGS. *Spirits of turpentine and syrup has cured bleeding of the lungs when all other means had failed;* use as follows: To one tablespoonful of turpentine add one-half teacupful of syrup. Of this take one teaspoonful into the mouth, and when it has to be ejected, take another. When an attack occurs, place the patient on the bed with the head and shoulders elevated.

2. *Table salt is regarded by those who have used it as superior to all other remedies for hemorrhage of the lungs. Many persons owe their lives to its use.* Half a teaspoonful is a dose.

But few persons should be in the room, which should be well ventilated and cool. If the feet are cold, a hot mustard foot-bath is very useful, and the warmth subsequently continued with a jug of hot water.

A strong decoction, or tea, made of the leaves of the bugle-weed *(Lycopus Virginicus)* is one of the best remedies known for bleeding of the lungs. As much as a pint a day should be drunk cold for several days, to prevent a return of the bleeding.

A tincture made of equal parts of black cohosh root *(Cimicifuga Racemosa)* and blood-root *(Sanguinaria Canadensis)* is also a valuable remedy, especially if there is any liability to consumption. It may be taken in teaspoonful doses every three hours.

The following remedies have been used with success: *Alum,* which when pulverized may be given in doses of two grains—or as much as will lie on the point of a penknife, every thirty or forty minutes; *turpentine,* ten to fifteen drops of which may be taken at a dose, once an hour; ten grains of Gallic acid every two hours is one of the best remedies; oil of *Canada fleabane (Erigeron Canadensis),* in doses of three to five drops every half-hour, is relied on by many; *ipecac,* the tincture, in doses of fifteen to twenty drops, every twenty or thirty minutes; the common stinging *nettle (Urtica Dioica),* of which drink a strong infusion or tea; or, what is still better, take frequent doses of the juice of its leaves.

Accessory Treatment—When persons of an enfeebled condition are attacked with bleeding from the lungs, they must take a mild, nourishing diet, consisting principally of milk, eggs, oysters, gruel, panada, strong beef tea, etc.; they should exercise moderately

in the open air, increasing the exercise as they gain in strength. Such patients should avoid all animal food, all liquors, tea and coffee, and every article of diet that is indigestible; oranges, lemons, ripe acid fruits of all kinds are very good, and all drinks should be taken cold.

BLEEDINGS FROM THE STOMACH, OR VOMITING OF BLOOD.

Vomiting of blood is generally preceded by pains in the stomach, sickness and nausea, and is accompanied with great anxiety and frequent fainting-fits.

This disease is sometimes periodical; in which case it is less dangerous. It often proceeds from an obstruction of the menses in women, and sometimes from the stoppage of the hemorrhoidal flux in both sexes. It may be occasioned by anything that greatly stimulates or wounds the stomach, as strong vomits or purges, acrid poisons, sharp or hard substances taken into the stomach. It is often the effect of obstruction in the liver, the spleen, or some of the other organs. It may likewise proceed from external violence, as blows or bruises, or from any of the causes which produce inflammation and ulceration.

Remedies—The patient should be confined to the bed; small pieces of ice should be swallowed. If the bleeding is excessive there should be entire rest of the stomach and nourishment should be given by injection. Among the most suitable for this purpose is strong beef-tea and milk.

From one-half to a teacupful may be used at each injection, four times a day.

After the injection, firm pressure should be made upon the anus with a napkin under the hand, until all efforts to expel it cease. It sometimes happens that vomiting of blood takes the place of the menstrual flow. If this is the case it should not be immediately arrested, but kept within proper limits. The swallowing of ice, and hot foot-baths, are advantageous.

One-half a teaspoonful of common table-salt, repeated every twenty to thirty minutes, is an excellent remedy, and is usually all that will be required in mild cases. A mouthful of vinegar, swallowed occasionally, will often answer the same purpose. With some patients, it may be necessary to dilute it with water before using.

Two tablespoonfuls of epsom salts in glass of cold water in which you have dropped five or ten drops of sulphuric acid is very useful. A tea, made of the witch-hazel (*Hamamelis Virginica*), when administered in obstinate cases, affords speedy relief. This bark, or the liquid preparations of it, can be obtained at all drug stores.

Among the professional remedies, Mousel's solution of subsulphate of iron is, perhaps, the best known to check hemorrhages. In these cases ten drops of the solution should be given in ice or cold water, and after the first two or three doses can be given frequently, from ten to thirty minutes apart, if the bleeding does not cease. Take it through a glass tube so as not to spoil the teeth.

If the hemorrhage occurs in the course of scarlet fever, typhus etc., vinegar, citric acid, lemonade, sulphuric acid diluted, yeast, chloride of soda, and chloride of lime in solution, etc., together with means to strengthen the system.

Accessory Treatment—It is also important in hemorrhage from the stomach that the organ should have perfect *rest.* As long as any tendency to hemorrhage continues, the patient should remain in bed, and take nothing by the mouth except occasional sips of iced water. Food, beef-tea, etc., should be introduced by the rectum.

Should faintness occur, no alarm need be excited, because it is often nature's method of arresting the bleeding. After the hemorrhage, the patient must still be kept cool and quiet, and the diet be light and unstimulating, while the posture of the body should be such as to favor the return of blood from the bleeding organs. Should the faintness persist, iced champagne is often an excellent restorative, and is not likely to induce vomiting.

During the discharge, gruel, rice or barley-water may be allowed, but after its arrest, the diet must be more nutritious, as beef-tea, toast-bread, custards, soft-boiled eggs, oysters, oyster-soup, etc.

FROST-BITE.

When a person has exposed his hands or other parts of the body to severe cold, so that they are frozen or frost-bitten, he should avoid suddenly approaching a fire, as it might cause a violent and painful inflammation, and even mortification. The parts should be rubbed with ice or snow, or immersed in cold water; or cloths, folded in several thicknesses and frequently wet with cold water, may be applied to them. After this course has been pursued until the frost is abstracted, the part should be bathed with strong alum-water.

Raw beefsteak is a very superior application to parts that have been frost-bitten.

Coal-oil, has, latterly, been used extensively for this purpose.

"The most effectual remedy," says a medical author, "I have ever known, and it is generally effectual in all cases, if persevered in, is rabbit's fat. Anoint the part well once or twice a day with it, especially at night, and rub it in well by holding the part to the fire. During the day, wear a piece of fresh rabbit's skin next the

affected part, with the flesh-side next the foot. If there is much swelling, with inflammation, poultice at night with rotten apples, or with elm and ginger. But in all ordinary cases, the use of the rabbit's fat and skin will be sufficient." If this is not at hand, mutton tallow will answer. They will generally effect a permanent cure. Bathing the parts at night in cold water will also be found serviceable.

"When the extremities are frozen," says an intelligent writer, "and even when quite black, it is the custom in Russia to rub the parts with warm goose-grease, repeating the application so often as to keep them always covered with the grease. This method," continues he, "has been found to restore their life and circulation with great effect." The oil or grease of common fowls will probably answer as good a purpose.

To relieve itching, to which the feet are subject, in such cases, bathe them in alum-water, and then warm them by the fire. One or two applications will afford relief. Some use a hot foot-bath; it is a positive cure.

BLEEDING OF THE NOSE.

In simple cases, when the discharge is trifling, no treatment is necessary; that suggested below is for cases in which the bleeding is excessive, long-continued, oft-recurring, or in which it arises from a debilitated state of the constitution.

Remedies—The application of cold water or ice to the forehead, neck, or back, raising the arms above the head, and holding them so for a short time, or pressing horizontally on the cheek-bone with the fingers, just above the bleeding nostril, and so compressing the blood-vessel, generally arrests the hemorrhage promptly.

In obstinate cases, blow a little gum-Arabic powder up the nostrils through a quill, which will immediately stop the discharge.

The following are other means, that may be employed for this purpose, and often with success: Apply a piece of cold iron to the back of the neck; plug the nose with lint saturated with a strong solution of alum; saturate a plug of lint with tincture of hamamelis and crowd the nostril full; or a strong tea of crane's bill; or the powdered leaves of the witch-hazel, used as a snuff. The two latter remedies will afford relief when all other means have failed. Pinch the nostrils so that no air may enter and disturb the clot. Suck up a little tincture of iron into a small syringe, let the patient hold his breath, and inject it into nostril.

In full-blooded persons, with redness of face, and subject to headache and dizziness, bleeding from the nose may be salutary, and necessary to ward off apoplexy, and should not be too suddenly stopped.

SUN-STROKE.

Symptoms—Most cases are preceded by pain in the head; wandering of the thoughts, or an inability to think at all; disturbed vision; irritability of temper; sense of pain or weight at the pit of the stomach; inability to breathe with the usual ease and satisfaction. Very soon the patient feels unable to command his limbs, and sinks down in a state of more or less complete unconsciousness; and there are two kinds, one in which the face is red and flushed, and the other when the face is pale.

Remedies—The old practice of putting cold water on the head is bad, and should be abandoned in cases of the pale-faced variety. In this give whisky or brandy.

A better method is to make hot applications. If hot water can not be obtained at first, bathe the head with tepid water, and, with the hands moistened, rub the extremities, the neck and the whole length of the spine, rubbing in a downward direction to draw blood from the head. As soon as boiling water can be obtained, put a dry blanket around the body, then wring flannels from the hot water and apply them quickly to the region of the stomach, liver, bowels, and spine over the blanket; also immerse the feet in hot water, or wrap them in hot flannels as far as the body. Re-wring the flannels once every five or eight minutes for half an hour or more, then remove them and apply cool water in the same way, either by wet towels or by sponging with cool water; dry well and rub the surface lightly and briskly with the hand until a glow is produced. As soon as the patient can swallow, give hot water to drink, plenty of it, with occasional bits of ice, or sips of cold water; and in these cases when the face is red and flushed, pour cold water on head and do not give stimulants.

Preventive—During the heated term, as it is called, *all* use whatever of malt, fermented, or distilled drinks should be abandoned. Wear a hat that permits the air to pass through, and have the top lined with one thickness of flannel, or keep a silk handkerchief, or wear a cabbage or plantain leaf in the crown. Persons who feel the symptoms above named should immediately get in the shade.

Everything in any way calculated to impair the *strength* should be avoided. Sleep is a most wonderful restorer of strength, and the want of it is often caused by a badly assorted, late meal of the evening before. *Defective* ventilation leads to a condition of affairs favorable to the malady under consideration.

Drinking large quantities of *cold water* in very hot weather, merely because it is cold, should be avoided, particularly before, during and after meals.

Loosely fitting garments should be worn, and warm baths should be regularly taken.

DROWNING.

Method for Saving Drowning Persons as Practiced in the United States Life Saving Service.

The method published, known as the Howard or direct method, has been productive of excellent results in the practice of the Life Saving Service, and is retained here. It is, however, here arranged for practice in combination with the Sylvester Method, the latter producing deeper inspiration than any other known method, while the former effects the most complete expiration. The combination therefore tends to produce the most rapid oxygenation of the blood —the real object to be gained. The combination is prepared primarily for the use of life saving crews where assistants are at hand. A modification of Rule 3, however, is published as a guide in cases where no assistants are at hand and one person is compelled to act alone.

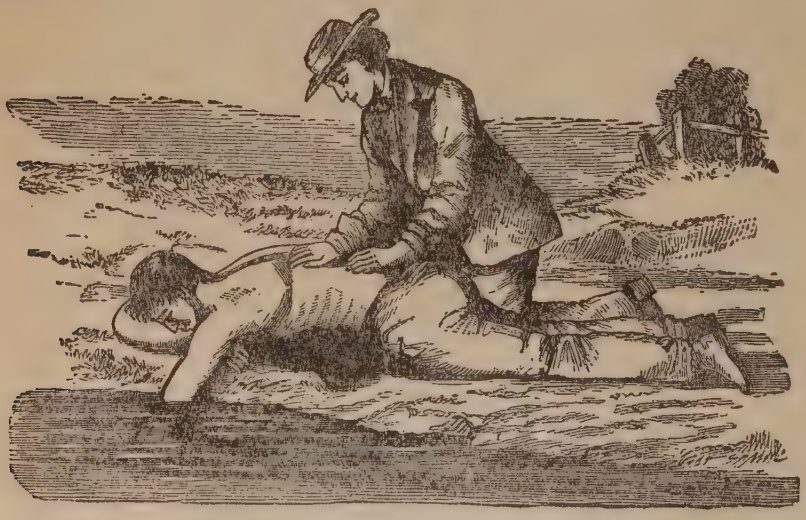


Fig. 1. Expelling water from body.

In preparing these directions the able and exhaustive report of J. Collins Warren, M. D., and Geo. B. Shattuck, M. D., Committee of the Humane Society of Massachusetts, embraced in an annual report of the society has been availed of, placing the Department under many obligations to these gentlemen for their valuable suggestions.

Rule 1. **Arouse the Patient**—Do not move the patient unless in danger of freezing; instantly expose the face to the air, toward the wind if there be any; wipe dry the mouth and nostrils; rip the clothing so as to expose the chest and waist; give two or three quick smarting slaps on the chest with the open hand.

If the patient does not revive proceed immediately as follows:

Rule 2. **To Expel Water from the Stomach and Chest**—(see Fig 1). Separate the jaws and keep them apart by placing between the teeth a cork or a small bit of wood; turn the patient on his face, a large bundle of tightly rolled clothing being placed beneath the stomach; press heavily on the back over it for half a minute, or as long as fluid flows freely from the mouth.

Rule 3. **To Produce Breathing**—(see Figs. 2 and 3). Clear the mouth and throat of mucus by introducing into the throat the corner of a handkerchief wrapped closely around the forefinger; turn the patient on the back, the roll of clothing being so placed as to raise the pit of the stomach above the level of the rest of the body. Let an assistant with a handkerchief or piece of dry cloth draw the tip

Fig. 2. Movements to produce inspiration.

of the tongue out of one corner of the mouth (which prevents the tongue from falling back and choking the entrance to the windpipe) and keep it projecting a little beyond the lips. Let another assistant grasp the arms just below the elbows and draw them steadily upward by the sides of the patient's head to the ground, the hands nearly meeting (which enlarges the capacity of the chest and induces inspiration). (Fig. 2.) While this is being done let a third assistant take position astride the patient's hips with his elbows resting on his own knees, his hands extending ready for action. Next, let the assistant standing at the head turn down the patient's arms to the sides of the body, the assistant holding the tongue changing hands if necessary (changing hands will be found unnecessary after some practice; the tongue, however, must not be released), to let the arms pass. Just before the patient's hands reach the ground, the man astride the body will grasp the body with his hands, the balls of the

thumbs resting on either side of the pit of the stomach, the fingers falling into the grooves between the short ribs. Now, using his knees as a pivot, he will at the moment the patient's hands touch the ground throw (not too suddenly) all his weight forward on his hands, and at the same time squeeze the waist between them as if he wished to force anything in the chest upward out of the mouth; he will deepen the pressure while he slowly counts, one, two, three, four, then suddenly let go with a final push, which will spring him back to his first position (a child or very delicate person, must, of course, be more gently handled). This completes expiration. (Fig. 3.)

At the instant of his letting go, the man at the patient's head will again draw the hands steadily upward to the sides of the patient's head as before (the assistant holding the tongue again changing hands

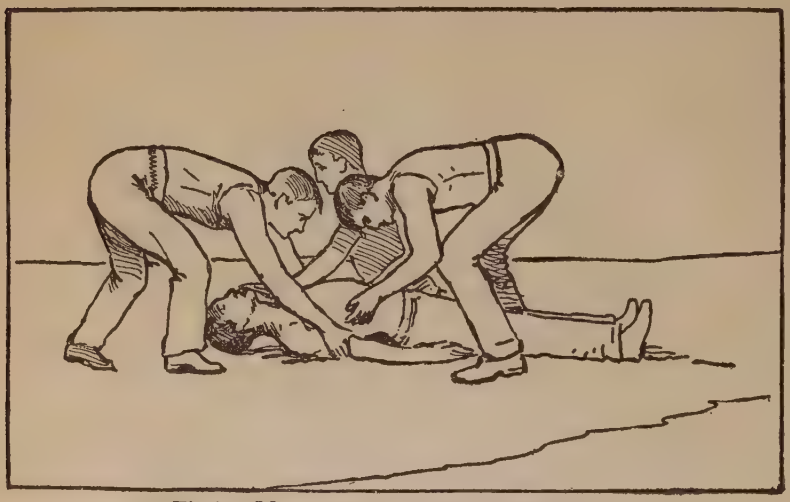


Fig 3. Movements to produce expiration.

to let the arm pass if necessary), holding them there while he slowly counts one, two, three, four.

Repeat these movements deliberately and perseveringly twelve to fifteen times in every minute—thus imitating the natural motions of breathing.

If natural breathing be not restored after a trial of the bellows movement for the space of about four minutes, then turn the patient a second time on the stomach, as directed in Rule 2, rolling the body in the opposite direction from that in which it was first turned, for the purpose of freeing the air passage from any remaining water.

Continue the artificial respiration from one to four hours, or until the patient breathes, according to Rule 3; and for a time after the appearance of returning life, carefully aid the first short gasps until deepened into full breaths. Continue the drying and rubbing,

which should have been unceasingly practiced from the beginning by assistants, taking care not to interfere with the means employed to produce breathing. Thus the limbs of the patient should be rubbed, always in an upward direction towards the body, with firm grasping pressure and energy, using the bare hands, dry flannels or handkerchiefs, and continuing the friction under blankets or over the dry clothing. The warmth of the body can also be promoted by the application of hot flannels to the stomach and arm pits, bottles or bladders of hot water, heated bricks, etc., to the limbs and soles of the feet.

Rule 4. **After Treatment**—Externally—As soon as breathing is established let the patient be stripped of all wet clothing, wrapped in blankets only, put to bed comfortably warm, but with a free circulation of fresh air, and left to perfect rest. Internally—Give whisky or brandy in hot water in doses of a teaspoonful to a tablespoonful, according to the weight of the patient, or other stimulant at hand, every ten or fifteen minutes for the first hour, and as often thereafter as may seem expedient.

Later Manifestations—After reaction is fully established there is great danger of congestion of the lungs, and if perfect rest is not maintained for at least forty-eight hours it sometimes occurs that the patient is seized with great difficulty of breathing, and death is liable to follow unless immediate relief is afforded. In such cases apply a arge mustard plaster over the breast. If the patient gasps for breath before the mustard takes effect, assist the breathing by carefully repeating the artificial respira+ion.

MODIFICATION OF RULE 3.

To be Used After Rules 1 and 2 in Case no Assistance is at Hand.

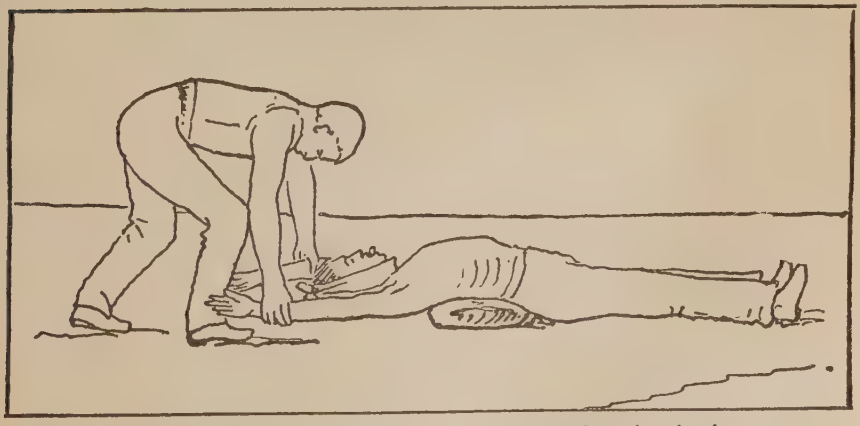


Fig. 4. Movements by one person to produce inspiration.

To Produce Respiration—If no assistance is at hand and one person must work alone, place the patient on his back with the shoulders slightly raised on a folded article of clothing; draw forward the tongue and keep it projecting just beyond the lips; if the lower jaw be lifted the teeth may be made to hold the tongue in place; it may be necessary to retain the tongue by passing a handkerchief under the chin and tying it over the head.

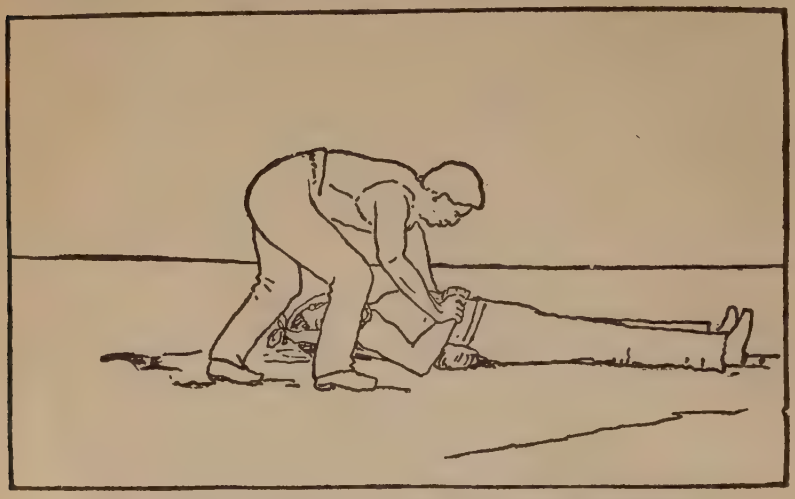


Fig. 5. Movements by one person to produce expiration.

Grasp the arms just below the elbows and draw them steadily upward by the sides of the patient's head to the ground, the hands nearly meeting. (See Fig. 4.)

Next lower the arms to the sides and press firmly downward and inward on the sides and in front of the chest over the lower ribs, drawing towards the patient's head. (See Fig. 5.)

Repeat these movements twelve to fifteen times every minute.

SYLVESTER'S READY METHOD.

Rule 1. **To Maintain a Free Entrance of Air into the Windpipe**—Cleanse the mouth and nostrils from dirt, saliva, etc.; open the mouth; draw forward the patient's tongue, and keep it forward; an elastic band, over the tongue and under the chin, will answer this purpose. Remove all tight clothing from the neck and chest.

Rule 2. **To Adjust the Patient's Posture**—Place the patient on his back, on a flat surface, inclined a little from the feet upwards; raise and support the head and shoulders on a small, firm cushion or folded article of dress, placed under the shoulder-blades.

Rule 3. **To Imitate the Movements of Breathing**—(*see engravings*)—The operator, standing or kneeling behind, and at the head of the patient, should grasp the patient's arms, just above the elbows, and draw them gently and steadily upwards till they meet above the head (this is for the purpose of inspiration, or drawing the air into the lungs), and keep the arms in that position for two seconds.

He should then turn them down, and press them gently and firmly for two seconds against the sides of the chest (this is with the object of pressing air out of the lungs—expiration).

If an assistant compress with both hands, flat, the lower part of the ribs and diaphragm, when the patient's arms are turned down, the expiration will be facilitated. The operator and assistant must carefully act together.

As the process of artificial respiration is laborious, the best qualified assistants should be selected to take turns with the operator; but changing places must be rapid, that not a single respiratory movement may be missed.

Repeat these measures alternately, deliberately and perseveringly, fifteen times a minute, until a spontaneous effort to respire is perceived, immediately upon which cease to imitate the movements of breathing, and proceed to induce "Circulation and Warmth," according to Rule 5.

Should a warm bath be procurable, the body may be placed in it up to the neck, continuing to imitate the movements of breathing. Raise the body in twenty seconds to a sitting position, and dash cold water against the chest and face, and pass ammonia under the nose. The patient should not be kept in a warm bath longer than five or six minutes.

Rule 4. **To Excite Inspiration**—During the employment of the above method, excite the nostrils with snuff or smelling-salts, or tickle the throat with a feather. Rub the chest and face briskly, and dash cold and hot water alternately on them.

The *efforts to restore life must be persevered in* until the pulse and breathing have ceased for at least an hour, for well-attested instances of resuscitation are on record after several hours of suspended animation.

Another and effectual method of effecting artificial respiration, is by the operator inflating from his own chest; and as he is able to drive in much more air than is absolutely necessary, its impurity is of no great consequence. An assistant must empty the patient's lungs, by compression of the chest, between the insufflations.

Rule 5. **To Induce Circulation and Warmth**—Wrap the patient in dry blankets and commence rubbing the limbs upward, firmly and energetically. The friction must be continued under the blankets or over the dry clothing.

Promote the warmth of the body by the application of hot flannels, bottles or bladders of hot water, heated bricks, etc., to the

pit of the stomach, the armpits, between the thighs, and to the soles of the feet. Warm clothing may generally be obtained from by-standers.

On the restoration of life, when the power of swallowing has returned, a teaspoonful of warm water, *small quantities* of warm wine, warm brandy and water, or coffee, should be given. In some cases, an enema of beef-tea and brandy is to be preferred to administration by the mouth. The patient should be put into a warm bed, in a room well ventilated, and encouraged to sleep. Great care is requisite to maintain the restored vital actions, and at the same time to prevent undue excitement.

The second "Ready Method," as it is called, is that of Marshall Hall.

The person whose breathing is to be restored is placed flat on the face, gentle pressure is then made on the back, the pressure removed, the body turned on its side, or a little beyond that. The body is then turned again on the face, gentle pressure again used to the back, then turned on the side. This should be done about sixteen times in a minute—facilitating artificial respiration as described above.

Both of these methods have the same *object* in view; either may be exclusively used, or one may be alternated with the other. Most physicians express a preference for the first described ("Ready Method of Sylvester"). Both of these procedures might be practiced, in advance, by the reader, because such practice might be more easily remembered than a concise rule.

APPARENT DEATH FROM HANGING.

Persons found hanging are to be cut down instantly, and the same means employed to re-establish breathing as in case of drowning. It may help to restore the breathing, to bathe the forehead and face with vinegar, or tincture of camphor, and to pass hartshorn frequently under the nostrils.

APPARENT DEATH FROM NOXIOUS VAPORS.

When persons become insensible from breathing foul air, gases, etc., in a well or other place, let them be immediately exposed to the open air, and cold water be dashed upon the face, and strong vinegar be rubbed about the nostrils, removing the clothing from the neck and chest. As soon as they can swallow, give lemonade, or a few drops of sulphuric acid, dropped into a tumblerful of water, and slightly sweetened. A stimulating injection may be given, prepared as follows:

Castor oil, 1 gill; pulv. cayenne, 10 grs.; molasses, 1 gill; table-1 salt ,teaspoonful; warm water, 1 pint. Mix.

No well, vat, or old cellar of any kind should ever be entered without first lowering down into it a lighted candle. If the flame is extinguished, or burns dimly, indicating the presence of carbonic acid gas, *no one*, under any circumstances, *should be permitted to enter without removing this foul air.* Buckets of water dashed down into the well, or masses of lighted shavings give enough *movement* to the carbonic acid gas to dislodge it. Freshly slaked lime also rapidly absorbs it.

COMMON BURNING GAS.

Persons retiring at night often leave the gas "turned down," and the flame becomes extinguished. Enough gas often escapes to give trouble to the sleeper unless the room is well ventilated. Persons have been known to "blow it out" and suffocation has followed.

Treat as for poison of other gases above described.

APPARENT DEATH FROM BURNING CHARCOAL.

Some persons attempt to warm their sleeping rooms with a portable furnace, or open pan filled with burning coals. This is altogether wrong, as such coals, while burning, throw off large quantities of carbonic acid gas, a deadly poison. This being heavier than atmospheric air, falls to the bottom of the room, and for a time may do not damage; but if there be no chimney draught, or window, it will rise above the heads of those in the room and bring on asphyxia and death.

Let such cases be treated the same as that of "noxious vapors and gases," with the additional measure of attempting to excite breathing, as in the case of persons apparently dead from drowning.

APPARENT DEATH FROM LIGHTING.

In such case, the same means for recovery should be used as in apparent death from drowning. Or the patient may be placed in a current of fresh air and cold water dashed upon the face and breasts, and warm friction and hot cloths should immediately be applied, if the body be cold.

Artificial respiration should be kept up until the parts of the brain and nervous system in charge of this duty shall have recovered sufficiently to attend to it, as recoveries after an hour of supposed death are on record.

Some stimulants, as the spirits of ammonia, may be used. Twenty drops in a tablespoonful of water every few minutes may be given, or a teaspoonful of brandy. A bucket of cold water on head and neck may revive one. If a battery can be procured, pass

a current of electricity from the base of the back part of the head down the spine and to the extremities of the limbs every two minutes; but discontinue as soon as signs of life appear.

APPARENT DEATH FROM STARVATION.

Give repeatedly small injections of warm milk, and after a little while, add to the injections chicken broth or beef tea. When the patient begins to breathe, give a few drops of warm milk every few minutes, and as he revives increase to a teaspoonful every ten minutes. As he still revives and asks for more food, give toasted bread and water in spoonful doses; and next a little broth or beef tea. Be careful not to give too much. Let him eat often, but only a little at a time.—*Gunn.*

FREEZING.

Treatment—In case of an individual being apparently dead from freezing, he should be rubbed with snow or ice-cold water; this should be done in a room without a fire; if breathing appears to have ceased, the case may be hopeless, but an effort may be made to restore it by adopting the method used in case of drowning. After some time the body may be wiped dry and flannels may then take the place of the snow or cold water; a little weak warm wine, or brandy and water, may be given from time to time. An injection of warm water should be used in connection with the other means, and, as vitality seems to improve, add to the brandy, wine or whisky, injections of weak coffee; beef tea should be given, at first in small quantities, but repeating it or the stimulants as they can be borne without exciting fever. Do not apply heat or have a fire in the room. It is dangerous to your patient.

SHOCK.

Mild forms of shock are often, by the non-professional, confounded with fainting. As far as they extend, the symptoms of an ordinary attack of fainting are similar to those of shock.

Treatment—Place the patient flat on his back with the head *raised over an inch or two.* Stimulants are required. The aromatic character of brandy enables it to be retained by the stomach when whisky and other forms of alcohol are rejected. Give a teaspoonful in a tablespoonful of water every two or three minutes, until six or eight have been taken. If the temperature of the body is *raised* by it, and there seems a revival of the action of the heart, *enough* brandy has been given. Ten drops of the spirits of ammonia in a teaspoonful of water may be given every couple of minutes, until four or five doses have been taken. Twenty drops of laudanum or half a grain of morphine may be given. Flannels, wrung out of

hot water, or bottles of hot water properly wrapped up, should be applied to the extremities and to the "pit of the stomach."

CONCUSSION OF THE BRAIN.

This is an interruption to the functions of the brain, from a blow, or other mechanical injury of the head; it may vary in degree from a slight stun to extinction of life.

Symptoms—Insensibility; pale face; small or imperceptible pulse; snoring breathing; cold extremities, etc. By shaking the patient or calling his name loudly in his ears (which, however, should never be done), he may give a surly answer, and soon become insensible again. After a time, longer or shorter, according to the severity of the injury, reaction comes on and consciousness returns, often with vomiting. At first the reaction may be imperfect; it is often several days, or even weeks, before the power of the mind is restored.

Remedies—Moisten the tongue with a few drops of the tincture of arnica, by means of a feather or quill, and repeat the dose every hour, for several times.

The patient should be placed in a warm bed, with his head at first moderately low, and warmth applied to his extremities and armpits. On no account should he be induced to eat or drink; he must also be kept very quiet, and no attempt made to arouse him. When reaction comes on, the head and shoulders should be raised a little and cold evaporating lotions applied, keeping the patient at the same time in a cool, quiet room, with the light modified and noise and conversation shut out. He must be under care for two or three weeks, lest some insidious inflammation should arise within the head.

FOREIGN BODIES IN THE THROAT.

When a person is choking, few would think of running off to consult a book; still, as it is desirable to have a clear idea of what should be done under the circumstances, directions are given, as every person should have some general knowledge how to act in case of emergency, and should acquire that information by reading during leisure moments.

Foreign bodies, becoming fixed in the throat or gullet, as sometimes happens when eating, may cause death. Efforts are made to cough, and the sense of choking is experienced with all its distressing accompaniments, in the form of distorted countenance and great fright.

Treatment—The patient should be made to sit down, when the finger of the operator should be pushed as far down the throat as possible, to endeavor to reach and dislodge the substance. Turn the person upside down and it may be dislodged. A surgical bent forceps may help in its removal. If this cannot be accomplished, the piece of meat or whatever it may be, should be pushed down into the stomach by means of a small bit of sponge tied to the end of a piece of whalebone, or some similar instrument. Surgical cutlers

have these probangs, as they are called, constantly in stock. A riding whip, a piece of cane or whalebone, cut at the moment out of an umbrella, have been, before now, made available in cases of choking, by wrapping it with silk and then oiling it.

When a fish bone is stuck in the throat, it may at times be got rid of by eating a piece of bread. Fish-hooks have been swallowed by children. It has been proposed, in the event of such an accident, to drill a hole in a bullet, pass it over the line, in order that the weight of the descending ball may dislodge the hook, which can then be withdrawn, the bullet protecting the soft part. Were I called in to such a case, I should much prefer using the common probang, making a hole in the sponge for the line to pass through, then guiding it by that, force out the hook, or shielding the end of the probang, to which a silver ring is ordinarily attached, with a piece of sponge; use that end, which would be better able to make force if necessary.

Tying a number of threads of silk to a piece of whalebone, so as to form loops, may make an instrument that would be useful for withdrawing any ough body.

Feathers have been swallowed when attempting to tickle the throat, so as to induce vomiting, and have been withdrawn from the esophagus by such an instrument.

Where glass has been swallowed, it has been recommended to fasten a piece of tallow candle to a string, swallow it and then withdraw it. Where other means fail, and the operation is required, it may sometimes be in the power of the surgeon to reach the part by cutting, and so remove the cause of danger.

Where a piece of meat or other substance is lodged in the throat, and where no surgeon or no probang can be got, or if got, cannot be used from nervousness on the part of those present, the best course to adopt, is that recommended some years ago by the late Dr. Marshall Hall.

Pressure being made on the abdomen, to prevent the descent of the diaphragm, a forcible blow should be made by the flat hand on the thorax (chest). The effect of this is to induce an effort similar to that of expiration; the larynx being closed, esophagean vomiting takes place and the morsel is dislodged.

If this plan fails, not an instant being lost, the pressure should be kept on the abdomen, the finger should be introduced into the throat, and the same smart, forcible blow made on the thorax, as before.

A little boy eating some fowl in haste, attempted to swallow too large a morsel and was choked; I ran to him, placed him between my knees, one knee (the right) pressing firmly on the stomach, and the other on the back. I then placed one hand (the left) on the back part of the thorax, whilst I gave a firm blow with the other on the breast. In an instant I had the joy of seeing the morsel of chicken expelled with force to a considerable distance, and all was safe.

In the absence of anything else, he recommends to get some cotton or linen made into a *firm* scroll and greased; he also suggests a thin, bent tallow-candle.

FOREIGN BODIES IN THE NOSE.

Children sometimes, in play, introduce things into their noses. If peas, beans, or any other substances be thrust in, no time should be lost in getting them out, otherwise, as they enlarge they become more firmly fixed. Hard substances, which remain unchanged by moisture, are of less consequence and may remain some days without causing much inconvenience, and often drop out of themselves.

The effect of a pinch of snuff may be tried as a means of dislodging them; keeping the mouth and the opposite nostril closed and then forcing air through the other, may also be tried.

These means failing, a bent wire or scoop may be used; in some cases it becomes necessary to push the foreign body back into the throat. These cases, however, must be treated by a medical man, where any such course is necessary. Two or three drops of carbolic acid in half pint of water used as an injection into the nose, at the same time remembering to open the mouth, is much better.

FOREIGN SUBSTANCES IN THE EYES.

When the substance is beneath the lower lid, draw the lid down and ask the patient to look up; then with the head of a pin covered with a soft silk or cambric handkerchief remove the substance. If it is beneath the upper lid, take a knitting needle in one hand, place the end across the upper lid about half an inch from its edge, take hold of the eyelashes with the fingers of the other hand, and gently raise the edge of the lid while you press the pencil or needle downward, so as to turn the lid inside out over the pencil, when an assistant can readily remove it. The corner of a dry silk handkerchief is very good to use. Small particles of steel are sometimes driven into the ball; they can be removed with the sharp point of a needle or knife, but when practicable apply to a physician or surgeon.

Mortar or lime is rapidly destructive. If seen *immediately,* the eye should be washed with a tepid solution of one part vinegar and eight of water. The lids should be inverted, as above directed, and every particle of lime removed. Grains of *gunpowder* may be removed with plain tepid water.

When the foreign body is removed, a weak solution of *arnica* should be applied to the eye by means of lint or soft linen, and covered to prevent evaporation. Ten grains of borax in two ounces of water is very good to remove the inflammation.

Instead of using the vinegar and water, as above directed, sweet oil is equal, if not superior. It should be at once dropped or rubbed into the eye. After the particles of lime have been removed as carefully as possible, the eye should be opened in water, as well as syringed with water.

Another method of removing substances from the eye, immediately after the accident has occurred, is to catch the lashes of the upper lid between the finger and thumb, then draw the lid gently outward and downward as far as it will go, then let it return to place. In doing this the lower row of lashes sweeps out the inner

surface of the upper eyelid, and in this manner removes anything that may adhere to it. Any person can do this for himself.

FOREIGN SUBSTANCES IN THE EAR.

When a solid substance gets into the ear, and you have no forceps, and can not extract it without, call in a physician immediately.

To remove foreign substances from the ear it is better, where it is possible to do so, to use a small syringe and tepid water, than the forceps. If an insect gets into the ear, deluge it with sweet oil —with a syringe, if you have it. If you have not the sweet oil, use lard oil, or melted lard. Warm water is an excellent substitute for these; turn the ear up and dip the water into the ear from a sponge.

HYDROPHOBIA (Rabies).

(Two Latin words signifying dread of water.)

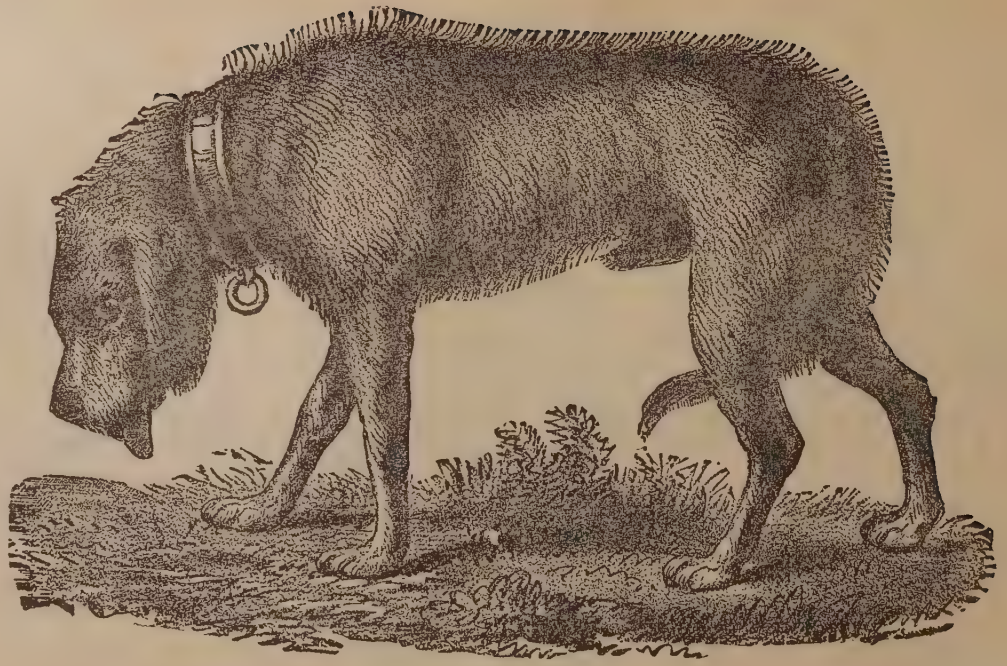
This is a disease resulting from the bite of a rabid dog, or from its licking an abraded portion of the skin, the chief characteristics of which are severe constriction about the throat; spasmodic action of the diaphragm; a peculiar difficulty of swallowing, and consequent dread of fluids; anxiety and restlessness; followed by exhaustion, delirium and death.

Symptoms of Rabies in the Dog—According to Youatt, the earliest are, sullenness, and frequent shifting of posture; loss of appetite; lapping his own urine; disposition to lick cold surfaces, to eat straws, *excrementitious* matter, and other rubbish; and fighting with his paws at the corners of his mouth. A very early and constant symptom is *change of voice,* every sound uttered being more or less changed.

The amount of *ferocity* varies; some show extreme fondness, while others bark and rush to the end of their chain to meet an imaginary foe; or, if loose, rush out, biting every one they meet. There is *no dread of water,* as in human beings, but, on the contrary, great thirst; and the saliva becomes viscid and adheres to the mouth. In the last stages of the disease, the eyes become dull; the hind legs, and afterwards the muscles of the jaw, are paralyzed; and the animal dies exhausted, in from four to six days.

Symptoms in Man—These are not manifested till a period varying from a few weeks to one or two years after receiving the infection, the wound having probably healed, and the scar presenting no remarkable appearance. Twitching and itching sensations are sometimes felt in the vicinity of the wound prior to an attack. Sometimes there is stiffness, or numbness, or partial palsy; or the wound may be red and swollen; there is an indistinct feeling of uneasiness and anxiety, with giddiness, chills, heat and a general feeling of being unwell. Special symptoms are arranged under three heads. 1. A *spasmodic affection of the muscles of the throat and chest;* act of swallowing commonly exciting convulsions, makes the patient afraid to

Fig. 9.
POSITIVE PREVENTION OF HYDROPHOBIA.
For mad dog bite bind cords tightly around limb, as indicated by index fingers. This prevents the poison from entering the system until the remedies for hydrophobia given on page 54 can be applied.



FIRST STAGE, RABIES.

repeat the attempt; hence the horror of all liquids which is so remarkable a feature of the disease. 2. *An extreme degree of sensibility of the surface of the body.* 3. *Mental agitation and terror* frequently mark the disease throughout. To these symptoms we may add extreme thirst; the secretion of a remarkably viscid saliva, the effort to swallow which brings on the convulsive fits; the convulsions increased in frequency and violence; the lips and cheeks become livid and perpetually quiver; till, at length, one fit lasts long enough to exhaust the remaining strength.

Cause—A bite from an animal already affected with hydrophobia. It is asserted and generally believed in India, that rabies never originated in dogs, but can always be traced to a mad jackal or wolf entering a village or town, and biting the dogs. Close confinement, want of fresh water, unwholesome food, etc., may have some influence in developing the malady.

Remedies—1. The following treatment has proved effectual in hydrophobia: At the time of the paroxysm, divest the patient of all clothing and bandage the eyes. Put him into a bathtub in the following manner: Place a thermometer in your bathtub, and when you have prepared the water at a temperature of sixty-five degrees Fahrenheit, plunge him into it without regard to his remonstrances. Repeat the bath whenever the paroxysm returns. It is important that the patient should neither see nor hear the water, nor know of the proposed bath; for this disease is aggravated by either. Give patient chloroform to relieve the spasms. One of the secrets of the success of this treatment is the suddenness and unexpectedness to the patient of the application.

2. A Syrian missionary gives the following as a remedy of some notoriety used in that country, for the cure of hydrophobia. Add about three handfuls of stramonium (*jimson*) leaves to one quart of water; reduce to a pint by boiling; strain, and give the whole to the patient at one dose, as soon as possible after the bite. It will seem to produce most violent madness, but it will be of short duration. After which, there will follow profuse perspiration, and, in twenty-four hours, the patient is relieved. This missionary, R. P. Legrand, reports many successful cures with this remedy.

German Remedy—An aged German forest keeper, not wishing to carry it to the grave, gives as a valuable remedy he has used for fifty years, and which, he says, has saved several men and a large number of animals from a horrible death by hydrophobia: Bathe the bite as soon as possible with warm vinegar and water, and, when this has dried, a few drops of muriatic acid poured upon the wound will destroy the poison of the saliva and relieve the patient from all present or future danger.—*Dr. J. C. Caswell.*

BRUISES. CRAMPS IN LEGS.

BRUISES.

Under this head we include all injuries from blows and falls, which are of so serious a character as to require medical aid. Apply a cloth, wrung out of very warm water, and renew it often until the pain ceases. The moisture and heat liquefy the blood and send it back to its proper channel. Use hot water, or very warm water, but not cold. It should be applied as soon as possible, and as hot as it can be borne. It is excellent to prevent stiffness. If the bruise is on the hand or foot, it will do to put it into the water and keep it there for some length of time, but it will be better to apply it with a cloth as above, only be sure and apply it often enough to keep it hot. This will also prevent any discoloration of the parts.

Common table salt is a most admirable remedy for bruises. Saturate cloths with a strong solution of it, and apply.

Petroleum (the crude article) is said to be unsurpassed for removing the soreness of bruises and wounds, and for promoting the healing process.

Tincture of arnica is the usual remedy for bruises, and is a very effective application. It should be prepared for use by adding two teaspoonfuls to half a teacupful of water, and the bandages, or other dressings, kept constantly saturated with the solution.

When no other remedies are at hand, apply raw beef. In ordinary cases, no other application will be needed.

CRAMPS IN THE LEGS.

Symptoms—Sudden contraction of the muscles of the calf of the leg, frequently the result of indigestion.

Remedies—1. Make a strong tea, of the high cranberry bush bark, and drink one-third of a teacupful, and it will stop the cramp in twenty minutes.

2. Another good remedy is the bark of the root of the black haw (*Viburnum Prunifolium*), which should be prepared and taken as the first. Persons who are troubled with cramping, should obtain either of the above remedies (the former being the better), and take it for a week or two, night and morning, and their trouble will seldom return. Rub the parts with dry mustard and bend the toes forward towards the shin letting palm of hand rest on sole of foot. If physicians would come down to these simple medicines, their success would be far greater in the treat-

ment of this difficulty, and, we might add, in most other diseases. These remedies act equally in the cramps attendant upon pregnancy, and perfect confidence can be placed in their action, for this purpose.

The following is a good means for relieving this difficulty: Press the foot firmly against some hard substance, as the wall, the floor, or bedstead. Sometimes, immediate relief is obtained by rubbing the limb downwards with spirits of camphor, or the tincture of cayenne pepper.

When the cramp is in the *calf of the leg*, draw up the foot strongly toward the shin-bone, and in a few seconds the cramps will pass off. When they are in *the thigh or arm*, tie a cord around the limb just above the cramped part, and then rub this part.

Immersing the parts in hot water is another good plan for obtaining immediate relief.

COMMON OR FLATULENT COLIC.

Symptoms—Severe twisting, griping pain in the abdomen chiefly around the navel, relieved by pressure, so that the patient doubles himself up, lies on his stomach, or rolls on the floor, writhing in agony. The bowels are generally constipated, but there is a frequent desire to relieve them, although little passes but wind; there is no fever, nor is the pulse even quickened, unless after a time it becomes so from anxiety. The paroxysms of pain are owing to the efforts of the bowel above to force downwards the mass of accumulated gas or fæces, while the lower portion is contracted. The distention of the intestines also is one cause of pain.

Colic is sometimes mistaken for inflammation of the bowels, and for rupture; but it may be distinguished as follows: In *colic* there is no fever, no acceleration of the pulse, no serious apprehensive anxiety, the pain is relieved by pressure, and there are intervals of almost complete relief, being entirely paroxysmal. *Inflammation of the bowels*, on the other hand, is attended with fever and constant *extreme tenderness of the abdomen*, causing the patient to avoid any movement which would bring into action the abdominal muscles, so that he breathes by the chest alone; and although there are *paroxysms* of severe pain, there are no complete intermissions and it is always attended with an accelerated pulse. Colic may be distinguished from *rupture* by the tumor which exists in the latter disease, but which is absent in the former. In colic there is always a great desire to urinate, and you can by putting your ear to the abdomen hear the rumbling of gas.

Causes—Errors of diet, such as eating a mass of heterogeneous, acrid, indigestible food, or acid fruits; cold, from wet feet or suppressed perspiration; worms; constipation, etc. It may also arise from a stricture of the intestines. It often occurs in hysterical subjects.

Remedies—In most forms of this disease, we doubt if there is any other remedy equal to sugar and hot milk. We have known it to cure the most violent cases as if by magic.

1. *Dissolve two teaspoonfuls of sugar in a cup of hot milk, and drink it as hot as can be borne. This is an infallible remedy for almost any form of common or cramp colic.*

Dr. Willis Jordan says: "A person had been for several days in great pain with this disease. Three physicians were in attendance, but all their endeavors to alleviate the pain were of no avail, when a friend of the patient called and recommended the sugar and hot milk remedy. It cured him immediately, to the great surprise of all present. The dose may be repeated in ten minutes if necessary.

This remedy, as powerful as it is simple, may well banish from the couch of helpless infancy and childhood the soothing-syrups, cordials, paregorics, and all the other deadly opiates with which it is customary to dose those innocent sufferers, and it will surely save their parents from many sleepless nights of pain and anxiety. For infants and little children a very small amount only will be necessary.

HOT WATER AND SUGAR NEVER FAIL TO RELIEVE AT ONCE ANY CASE OF COLIC. MRS. THERESA STEPHENSON, A HOSPITAL MATRON, WRITES: "SUGAR AND HOT WATER ACTS LIKE A CHARM IN CASES OF COLIC, AND NEVER FAILS TO CURE IMMEDIATELY. THE DOSE IS ONE TEASPOONFUL OF SUGAR DISSOLVED IN A LARGE GLASSFUL OF HOT WATER, AND TAKE IT AS HOT AS CAN BE BORNE. SOMETIMES IT MAY BE NECESSARY TO REPEAT THE DOSE.

2. The application of hot, dry salt, in a small bag, or folded in a towel, will often give relief. This is always to be had, it is soon heated and has this great advantage over hot fomentations, that it does not leave the patient wet after his pain is relieved. By keeping two napkins in use, the salt for the one may be heated while the other is applied. In all cases of colic the heat gives relief almost from the first application. Hot aromatic drinks of all kinds are good.

Cramp-Colic—The wild yam, taken as directed in "Bilious Colic," is a very prompt remedy, and reputed to be a specific in cramp colic.

This is only a more intense form of the common colic, but the same remedies are adapted to both forms of the disease.

The doses given in this disease, as well all others mentioned in this book, are intended for adults. For children, see "Table of Doses for Children."

Accessory Means—Hot flannels over the abdomen; or a *copious injection of warm water,* is often followed by immediate relief. Food of a flatulent character, especially vegetables, and every kind that has been found to disagree with the patient, should

be avoided. Persons subject to colic may be benefited by wearing a piece of flannel covering the entire abdomen, and having the feet well protected from damp.

PAINTERS' OR LEAD COLIC.

Lead miners, plumbers, manufacturers of white lead, and painters, are subject to this affection. Persons using water that has passed through or stood in lead pipes or cisterns, are liable to attacks of it. Many of the symptoms are similar to those of other forms of colic; but the pain generally commences less abruptly, and is at first dull and afterward increases and extends to the back and sides. The stools are usually hard, dry and knotty; sometimes there is diarrhea, but the abdomen is not tender; there is a blue line along the gums; this is diagnostic of lead colic.

Remedies—1. It is well, sometimes, to put the patient into warm water, for half an hour, in order to relax the muscular system, and overcome the spasms of the bowels.

2. A decoction of ground ivy (*Nepeta Glechoma*), used freely, is said not only to ward off the disease, but to cure it when once developed.

3. Malic acid will also be found a very useful agent, in preventing and removing this painful disease. It can be procured at drug-stores, and it also exists plentifully in the juice of apples, currants, barberries, and other fruits.

4. Iodide of potash, one-half ounce; water and simple sirup, of each two ounces. Mix. Dose, one teaspoonful every three hours. If it is desired to use other remedies than those specified above, those recommended for bilious colic may be employed. (See "Accessory Measures," under common or flatulent colic, which are applicable to this disease).

5. Aromatic sulph. acid is very useful, put a tablespoonful in one half-pint of water and drink freely.

BILIOUS COLIC.

This disease is characterized by severe colic pains, which are often attended by vomiting yellow and green bile. An attack is often preceded by nausea, yellowness of the skin and eyes, and uneasiness in the right side; sometimes it begins with a chill. There is occasionally partial paralysis of some portion of the upper and lower limbs. The disease may be caused by improper food, or exposure to cool nights in warm weather, sudden colds, or over-eating.

In all cases, examine the abdomen carefully, and see if you can find a rupture, which will be manifested by a tumor or swelling, usually situated either at the navel or in the region of the groin. A warm bath is one of the best measures in every form of colic. Cloths, wrung from hot water and applied over the bowels, often afford some relief. In all cases where the bowels are costive, or in any case where there is no diarrhea, injections of warm water will give immediate relief. Also let the patient drink freely of warm water, sweetened, specially if there is nausea and vomiting.

Remedies—1. A strong tea of the *wild yam* (*Dioscorea Villosa*), given in tablespoonful doses, every ten minutes, will cure almost any case of bilious colic. It is regarded as a *never-failing* remedy. If the medicine is vomited, repeat the dose. In a few hours relief will be obtained.

The active principle of this plant, called *Dioscorein*, may be given in five-grain doses. Or the fluid extracts, in one-teaspoonful doses, where the root cannot be obtained. This remedy is said to be equally good for cramp-colic.

2. The American or wild ipecac has the reputation of being a prompt cure for this disease. Dose, ten to fifteen grains, or as much of the powder as will lie on a ten-cent piece, every half hour.

3. If you have neither of the above remedies at hand, mix two tablespoonfuls of corn-meal in a tumblerful of hot water, and drink at two draughts. It very frequently gives relief.

4. Two tablespoonfuls of ground mustard in a tumbler of hot water, drinking at the same time large draughts of warm water until vomiting is freely produced, is often very efficacious.

Dr. M. Curtis says he has never found anything to equal the following, in effecting speedy relief and soothing the patient when he seems to be almost in the agonies of death.

5. Half a pint of soapsuds (Castile soap), one tablespoonful castor oil, half a pint of water, a small handful of poppy leaves. Mix. After standing a short time, strain and use as an injection.

6. Dr. Lane recommends the following as affording effectual relief in this affection, in a very large proportion of cases, without any medicine: "Lie on the back with the head the lowest, and rub the bowels towards the head, at the same time bearing down upon them." See "Accessory Measures," under common or flatulent colic.

WOUNDS.

Incised Wounds—Incised wounds are those that are made with sharp, cutting instruments.

How to Check the Flow of Blood—If the blood flowing from a wound is dark-colored and does not flow in jets, but in a steady stream, it can generally be checked by applying cold water and exposing the cut surface to the cold air, or by a compress

applied to the part directly. If the vessels from which it flows are small, or when an artery of the arm is cut, elevating the wounded limb above the head will tend to arrest the flow of blood. In a wound of a lower limb, raise the foot, so that it shall be higher than the hip, until the bleeding ceases.

If these measures do not soon relieve, or if large veins are wounded, Dr. Ellis gives the following valuable directions for their management: "Compress the veins with the ends of the fingers, or by a compress, bound to the part by a bandage, or held by the hand. It is never well to heap on a large quantity of rags or cloths, for they only absorb the blood; a few thicknesses, with steady compression, are far more efficacious. If the blood is of a bright color, and flows in jets, it shows that an artery has been wounded, and that there is more danger of serious hemorrhage. If the artery is small, by compressing it firmly with the end of a finger for a few moments, the bleeding will often cease. If it is larger, but not very large, and a surgeon or physician is not at hand, it may be compressed by the finger until a small pair of forceps can be obtained, with which the bleeding vessel may be seized, and either twisted around once or twice, or drawn out and tied with a strong thread. This should also be done with the larger veins.

After making compression with the fingers, as described, take a piece of cloth or handkerchief, twist it cornerwise, and tie a hard knot midway between the two ends; or put a small potato in handkerchief and twirl. This knot should be placed over the artery, between the wound and the heart, and the ends carried around the limb and loosely tied. A stick, five or six inches long, should be placed under the handkerchief, which should be twisted until the knot has made sufficient compression on the artery to allow the removal of the fingers without a return of bleeding. Continue the compression until a surgeon or physician can be called.

If the end of the bleeding vessel can be seen, it may be directly compressed with the finger, in connection with the compression below. If the wound is low down in the neck, the only chance may be to press into the wound upon the bleeding vessel. If an artery in the arm is wounded, the main artery may be compressed near the arm-pit, or lower on the inside of the arm, any spot between the cut and the body, the nearer the wound the better; or a handkerchief may be tied around the arm above the wound, and always above the elbow, even if the wound is below, and with a stick, the handkerchief may be twisted until it stops the flow of blood. It will the more readily do this if a compress of cloth or of a stick, or stone, half as large as a hen's egg, is placed under the handkerchief, over the course of the artery, on the inner side of the arm."

How to Dress Wounds—Having arrested the hemorrhage the next point is to see that the wound is free from all foreign substances, such as dirt or bits of clothing; also, as far as practicable, from clots of blood. After the hemorrhage has ceased, the wound

may be washed out with tepid water, but if there is still some oozing of blood, cold water may be used. Very hot water applied with a sponge to the part will often stop the flow.

If it is very large, one or more stitches may be required, which can be made with a common needle and coarse linen or white silk thread, if a surgeon or physician can not be obtained within an hour or two. Narrow strips of adhesive plaster should be used to draw the edges of the wound accurately together, as indicated in the cut below.

At the end of four days the stitches should be cut on one side

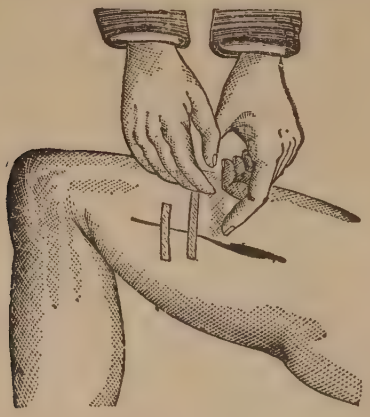


Fig. 4. The manner in which strips of adhesive plaster are applied to wounds.

close to where they enter the skin, and by taking hold of the knots they should be drawn out. If an artery has been ligatured, one end of the ligature should be left hanging out of the wound when it is first dressed, so that it can be withdrawn when it becomes loose. Over the adhesive plaster may be put a few folds of cotton and a bandage around the whole, if the parts are adapted to a bandage. The strips of adhesive plaster should not be removed until the wound is well, which will usually require the best part of a week, before it will be safe to remove the dressing entirely, or exercise the part. Nature effects the cure; all that art can do is to furnish favorable conditions. Excessive inflammation sometimes occurs, although rarely, especially in cut-wounds; but when it does, if not soon relieved, it will prevent healing. In such a case cold, and if that does not relieve, warm applications—simple cloths wrung from cold or warm water, or a bread-and-milk poultice—are all that are necessary. But where there is not much inflammation, no applications are necessary, more than the first dressings of straps and bandages: and often the latter may be dispensed with.

But in order for wounds to thus heal in four or five days, they must not be tampered with before being dressed; they must be dressed within a very few hours—within one or two, if possible—after being received, and be let alone after they are dressed until the parts have time to heal. Do not wash a wound of any description.

But a good deal of ignorance prevails with many, which is the cause of much mischief and unnecessary suffering. Every man and woman, almost, has a cure-all for cuts and wounds; one applies soap and sugar, another whisky, another salt, and another some quack plaster, ointment or liniment. With not a few, tobacco is a sovereign remedy. Not long since, I was called to dress a finger, which had been nearly severed, and found the wound stuffed full of this poisonous and filthy weed; the result was, the young man lost his finger. The best modern surgery treats all wounds antiseptically. A solution of carbolic acid, a teaspoonful to half a pint of water can be used as a dressing, and all cloths should be saturated with it. Let no one dress a wound, whose hands have not been washed in the solution referred to above. All such applications, when made to the surface of a wound, cause an unnatural irritation, and it is always very difficult to heal a wound, by first intention, after they have been once applied; and it is generally impossible to avoid suppuration, and consequently much unnecessary suffering, loss of time and deformity. But as wounds generally get well in spite of bad treatment, the nostrum used gains credit through the ignorance of the user. No application, then, should generally be made to the kind of wounds we are now considering, except such as are necessary to keep the two surfaces of the wound closely together; and often all that is needed for this purpose, especially about the extremities, are a bandage, and a small compress or two, of cloth or cotton. Where these are not sufficient, adhesive plasters, and occasionally stitches, are needed, as directed above. No irritating applications should ever be made to the raw surface of a fresh cut, as it not only causes severe suffering, but it also serves to lessen the chance for a speedy cure. The application of salt, spirits of turpentine, and like stimulating substances, to cut surfaces, in the lower order of animals, is not only cruel in the extreme, but also injurious. The oil of turpentine may sometimes be applied to the hair around the wound, when it is difficult to confine dressings to the parts, to keep the flies away, but care should always be taken that it does not enter the wound.

Nature Her Own Healer—The union of the divided parts is effected by the action of the divided blood-vessels, and not by salves and ointments. The only object of dressing is to adjust the parts together, to keep them so, and protect the wound from air and impurities. *Nature*, in all cases of injuries, performs her own cure. Such simple wounds do not generally require a second dressing, and should not be opened until the incisions are healed.

These remarks apply, of course, to a simple, incised wound, when union takes place at once, or with but little suppuration

(making of pus). This cannot always be secure from suppuration of the sides of the wound after the dressing has been applied, or an unfavorable condition, as it is said, of the blood. In such a case the blood or pus must be removed once a day, as a rule, the surfaces of the wound kept together as much as possible by adhesive strips until a junction is effected. Do not use too much soap and water, as the only object of them is to better and more easily remove the foreign matters (blood and pus), which, if retained, act as irritants; but not to remove the healing material poured out by nature for *joining* the separated surfaces.

Razor-Cuts—In shaving the face, cuts are sometimes made which bleed to a troublesome extent. A crystal of common alum should always be kept with the apparatus, the bleeding absorbed by a fold of the towel, and then, before the blood can accumulate, thrust into the incision the edge of the crystal, holding it there a few seconds. If the bleeding continues, it is because the alum does not reach the divided vessel, and the wound should be wiped out until it can.

Fainting from Loss of Blood—If the patient faints from the loss of blood, lay him on his back, with his head low, and give him a spoonful of brandy and water, or a drop or two of camphor, and dash cold water in his face. Do not mind fainting, it is rather beneficial.

Or the patient may take five or ten drops of the spirits of ammonia in a little water. The dose may be repeated in ten or fifteen minutes, until the patient is sufficiently recovered.

CONTUSED AND LACERATED WOUNDS.

These are produced by cudgels, bullets, or whatever else of a blunt nature, tears asunder the muscular fibres, leaving uneven surfaces.

These wounds need careful cleaning and removal of clots. The *general* treatment may be the same as for "Incised Wounds." As soon as any alarming bleeding has been checked by the application of ice or cold water to the blood-vessels, or, if necessary, by pressure upon them, bring the edges of the wound together by strips of adhesive plaster; *remembering*, in applying them to a contused wound, that there must necessarily be inflammation of the bruised parts, with consequent discharges. After sloughing has begun *poultices* are often of use in favoring the process.

To prevent inflammation the applications should be kept quite cool. If the parts are much bruised or swollen, apply cloths wet in cold water, or what is better, a solution which contains a teaspoonful of calendula to half a pint of water.

But if the wound becomes inflamed, warm applications do better —simply cloths from warm water, or a warm bread-and-milk

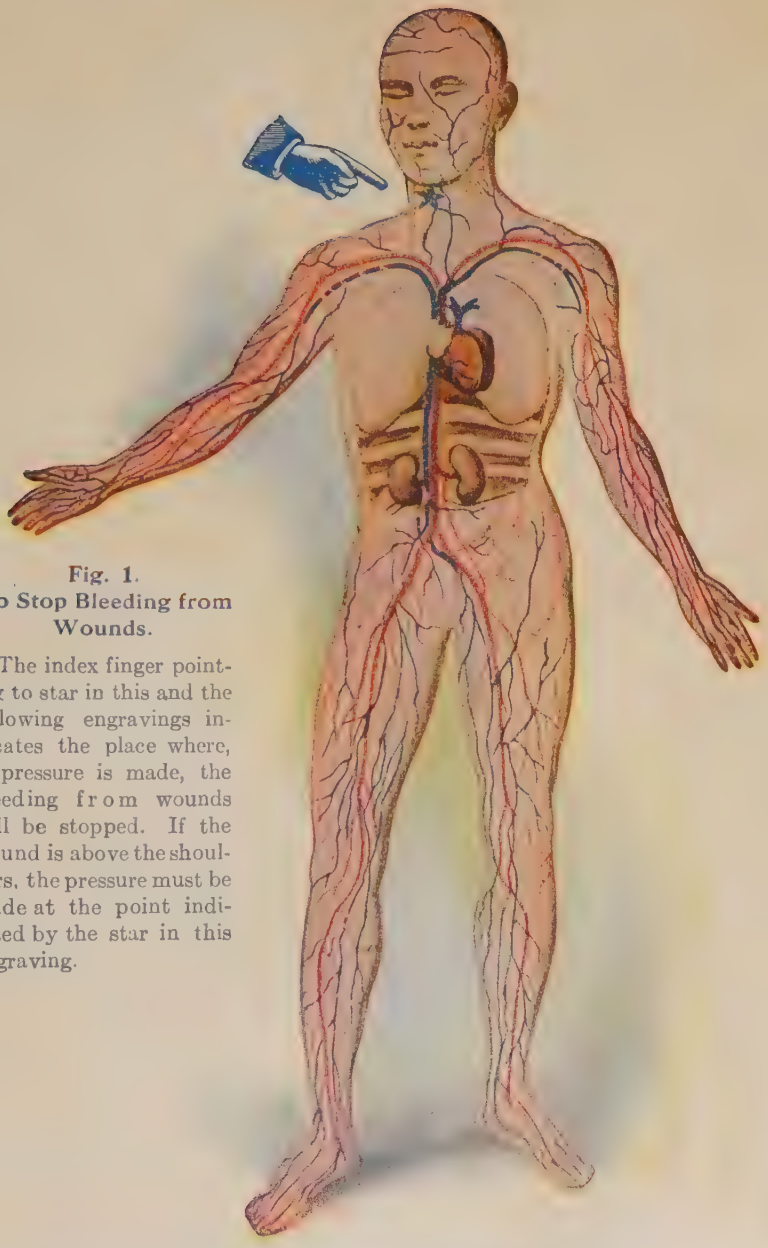


Fig. 1.
To Stop Bleeding from Wounds.

The index finger pointing to star in this and the following engravings indicates the place where, if pressure is made, the bleeding from wounds will be stopped. If the wound is above the shoulders, the pressure must be made at the point indicated by the star in this engraving.

Life may be often saved by having at hand the above directions.

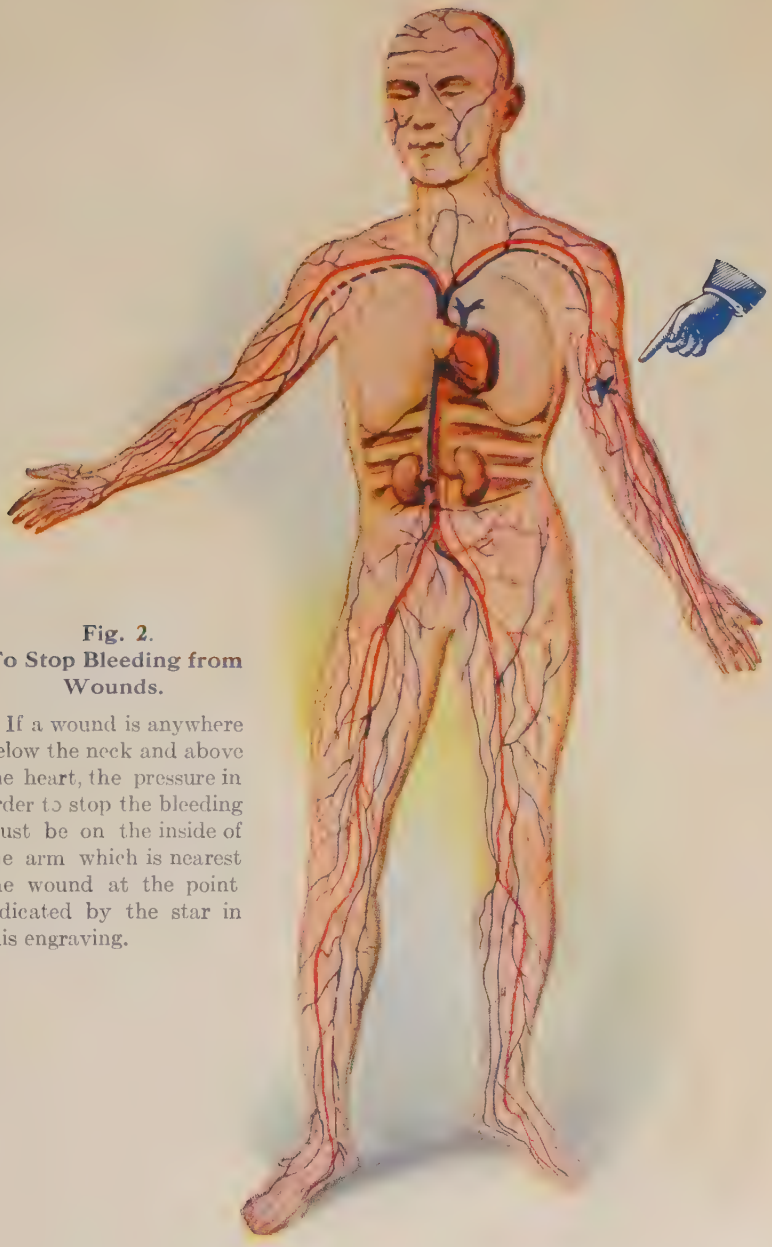


Fig. 2.
To Stop Bleeding from Wounds.

If a wound is anywhere below the neck and above the heart, the pressure in order to stop the bleeding must be on the inside of the arm which is nearest the wound at the point indicated by the star in this engraving.

Life may be often saved by having at hand the above directions.

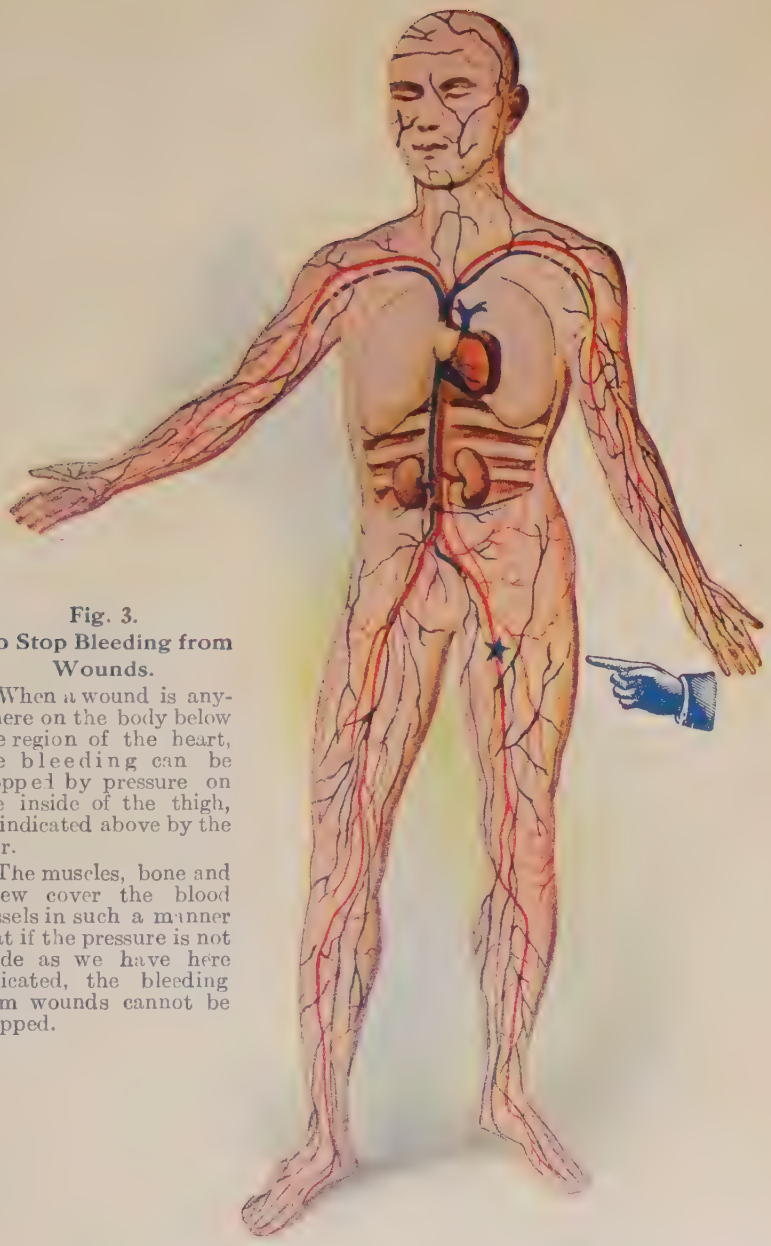


Fig. 3.
To Stop Bleeding from Wounds.

When a wound is anywhere on the body below the region of the heart, the bleeding can be stopped by pressure on the inside of the thigh, as indicated above by the star.

The muscles, bone and sinew cover the blood vessels in such a manner that if the pressure is not made as we have here indicated, the bleeding from wounds cannot be stopped.

Life may be often saved by having at hand the above directions.

poultice. After the inflammation is relieved, the more simple the dressings the better, for nature heals the wound, and the danger is that the applications which are made may do harm. See that there is free exit for accumulated pus.

PUNCTURED WOUNDS.

These are made by a sharp-pointed instrument, as by a dagger, bayonet, scissors, etc. Punctured wounds are not only dangerous on account of their depth, injury of blood-vessels, nerves, or vital parts, but they also frequently give rise to extensive inflammation. Immense agitation of the nervous system, even lock-jaw, follows.

If very deep, they should not be allowed to heal at the surface very speedily, and consequently should not be closed up with adhesive plaster. They are very apt to become inflamed, if allowed to heal by the first intention at the surface.

Once a day, or oftener if the wound is discharging, it should have the dressing changed, to insure neatness and escape of pus.

Under the head of "Punctured Wounds," may be mentioned those produced by a thorn, splinters of wood, or a piece of metal. In all cases, if it is a splinter or thorn, it should be taken out; not by poking at it with a needle, which *adds* to the irritation, but by making an incision or cut along its course, so as to expose it enough to get a sufficient hold of it. If the splinter is under the finger nail and cannot be pulled out, the nail immediately above should be scraped as thin as possible with a piece of glass, and then the thin nail overlying should be split with the blade of a knife, or an incision made on each side of the splinter, the tongue of nail between the incisions removed, when it can be taken out.

When the finger, hand or toe, has been pricked, particularly by anything foul, as a rusty knife or nail, the opening does not permit the escape of the retained foreign particles, inflammation results and lock-jaw supervenes in many cases.

Whenever flesh wounds are received, an incision should be made into the puncture, thereby providing a suitable escape for the blood, pus, etc. This can be done by almost any one.

In washing clothing, an entire needle is sometimes forced beneath the skin. Do not attempt to get it out, but hold the part quiet until a physician or surgeon can be procured. The slightest movement often places it beyond detection. When this happens, there is no occasion to be alarmed, as the needle passes in between the muscles, and cannot even be felt as painful. It does no harm there, as inflammation almost never results.

Remedies—In case of pain, swelling or inflammation occurring in the part, in consequence of the presence of a splinter of wood or bone, that has not been, and cannot well be, removed, apply a

poultice of bread and milk, or of flax or linseed meal, in order to promote suppuration, or the formation of "matter." When this takes place, and is discharged, the splinter will commonly be discharged with it.

Calendula Lotion—The tincture of marigold (*Calendula*), diluted with water, forms an excellent lotion, or wash, to arrest bleeding and check suppuration. When it is necessary or proper to accomplish these objects, the lotion is often employed with great benefit. It is also a very useful agent to effect the healing of cuts and bruises. The lotion is prepared by adding a teaspoonful of the tincture to half a teacupful of water.

Petroleum—When this is applied to wounds, it will remove soreness and tend to heal them rapidly.

Arnica Lotion—This should be prepared by adding two teaspoonfuls of the tincture to a half teacupful of water.

After the wound is dressed, the bandage may be kept wet with this lotion.

Pond's extract of witch hazel is one of our best applications to wounds.

In cases of internal wounds, give the patient one or two drops of the tincture, in a little water, every four hours.

Arnica lotion is useful and efficacious in wounds and bruises and may be freely applied.

Dressing of Wounds—Wounds should never be uncovered, for the purpose of being dressed, until everything that is required during the process is close at hand.

Old dressings that have become fast to the surface of a wound should *never be pulled off sharply*, but should be previously loosened by bathing with warm water.

Discharges should be cleaned away from the edges of a wound, and from the surrounding parts, but the surface of the wound itself should be left undisturbed.

A soft surgical sponge should be used, or else cotton or tow soaked in water; when, as in burns, the wound is extensive, but a part of it should be uncovered at once.

GUNSHOT WOUNDS.

After cleansing the wound, inflammation must be kept down by cooling applications, elm-poultices, etc. Treatment for these should be the same as named for punctured wounds. Be careful never to enlarge a gunshot wound by the introduction of tents, or cutting them.

DETECTION OF FRACTURE (Broken Bone).

A few words on the immediate management of cases of broken bones seem necessary, as a surgeon is not always just at hand, and it is necessary to be prepared to act till surgical attendance can be had.

Symptoms—A fractured bone may generally be detected by having felt or heard it *snap;* by some *deformity*, such as bending or shortening; by the fact that if the upper end of the bone is held firmly by the hand, the lower part may be moved independently; also by a grating noise which may be heard, if the broken ends are rubbed against each other. Further, there will be pain, loss of power of the broken part, and other symptoms. Fracture is said to be *simple* when there is no wound of the skin communicating with it; *compound* when there is such a wound.

Causes—*Mechanical violence* is the most frequent; but muscular contraction is sometimes a cause. Old age, some diseases, and prolonged disuse of a limb, render bones liable to fracture from trifling causes.

Immediate Treatment—A broken leg should be fastened to the whole one, by a handkerchief at the ankle and above and below the knee, before the patient is removed.

The patient must be moved *gently*, and special care taken to prevent the broken bone from being forced through the flesh and skin. He should be placed on a stretcher or litter, and taken to his home, or to a hospital. A litter may be made, of a couple of poles and a horse-blanket or sack; even a door or hurdle may serve the purpose. Placing him on this, and carrying him by two men, is much better than removal in a cart or carriage. It is important *not to be in a hurry*, as an injury is often greatly aggravated by carelessness or too hurried measures. When a surgeon is within a moderate distance, after making the patient as comfortable as possible, it is better to wait a little, so that he may superintend the moving.

The patient being placed in the most comfortable position possible, the injured parts should be well bathed with *arnica*. This may be applied by means of a sponge or piece of soft linen rag. Should the fracture, however, be a compound one with disposition to bleed, *calendula* lotion should be used instead of *arnica*.

FRACTURES.

In fracture of the clavicle, or collar-bone, a pad should be placed in the arm-pits, so as to raise the shoulder upwards and outwards. The knee of the operator being pressed against the back, admits of the shoulders being drawn backward; this will allow the broken ends of the bones to come together; bandaging will then be required to keep the parts in this position. The shoulders can be

kept backward by a bandage, going round each shoulder and crossing on the back. Another, or part of the same bandage, will keep the arm to the side, while a handkerchief from the neck will form a sling that will raise the arm.

Fractured Jaw—Fracture of the lower jaw may generally be detected by inequality of the teeth, and by the crepitus, or grating. In some cases it may be hidden by the swelling, considerable difficulty being experienced in making a diagnosis, or detecting the injury.

The parts should be carefully adjusted, and kept in their place by a piece of pasteboard softened in hot water. A piece of calico, about four inches wide and a yard and a half long, should be torn from each end longitudinally, leaving about seven or eight inches in the middle untorn. Another longitudinal tear should be made in the centre of this, sufficient to let the chin slip in. Two ends should be tied on the top of the head, and the other two brought round to the back of the head; this keeps the jaws in contact. A thin piece of cork should be placed between the molar or back teeth; the patient should remain in bed, with the head bending toward the chest. Sometimes the teeth require to be fastened together by strong thread.

Fractured Ribs—Fractures of these bones may be recognized by the detection of crepitation, or grating, felt during inspiration; also by feeling along the bone with the fingers, till they pass over the fracture, when the difference between that part and the sound portion becomes perceptible. It must, however, be recollected that in fat persons these sources of information may fail; the pain, however, will direct attention to the seat of the injury, and create a suspicion of what has happened. These accidents are apt to happen when many persons are squeezed together from the pressure of a crowd.

The usual course, when a fracture is known to exist, and where it can be borne, which in some cases cannot be done, is to put a broad bandage or towel round the ribs, under which tightly applied at the point of fracture is a compress of folded cotton cloth and supported over the shoulders by straps. The arms are kept to the side and perfect rest enjoined. In addition to the treatment by *arnica* internally, use *arnica* lotion externally, as directed under that head.

Detection of Dislocation—Our attention is called to the accident that has happened, by the deformity of the joint, or the diminution of the power of movement. The limb is found to be shortened or lengthened; it often happens that the ligaments are torn. Dislocation may occur with fracture, and is at times mistaken for fracture. It may, however, be recognized by the absence of crepitation (the grating described under the head of fractures), the diminution of the power of movement, the elongation of the limb, which is most frequent in dislocations (in fracture the limb being shortened, and further, by the remedial process of making exten-

sion), if the head of the bone is restored to its place; the improved condition being evident. In dislocation of the arm it is upward when it is shortened or if downward into the arm-pit it is lengthened. In dislocation of the thigh the same is the case.

Result of Neglected Dislocation—If a dislocation is allowed to remain unreduced, a sort of false joint is formed, new tissues being created to serve the purpose of those no longer in use. Imperfect movement and deformity result.

Treatment—No time should be lost in attempting to reduce the dislocation, the very state of faintness induced by the injury being often of great service to the operator in enabling him to replace the bone with ease, while the delay of a few hours is likely to make the operation in every way much more difficult. The body of the patient is to be held firmly, so that the socket of the joint from which the bone has been dislodged may be maintained in a fixed position. The dislocated portion is then to be drawn or extended, in such a manner that the head of the bone may be returned back into its natural cavity by the action of the muscles.

A sudden pull or jerk may sometimes reduce a recent dislocation; those of longer standing are much more troublesome to manage. In dislocation of the arm, put the heel in the arm pit, and pull steadily, pressing with the heel against the line of the bone. In dislocation of the elbow, let the patient sit in a chair and put the knee against the inside of the arm at the joint and bend slowly pulling at the same time. In operating in this way except with the elbow the patient should lie on the floor.

In those cases where a cavity of a joint communicates with the open air, especially when further complicated with fracture, amputation may be called for. Medical assistance should be obtained as soon as possible.

Arnica in solution should be given every three hours, and arnica-lotion applied externally, the parts being enveloped in linen wetted with the lotion. See "Arnica Lotion."

DIVISION THREE.

GENERAL DISEASES.

ASTHMA.

Asthma is a spasmodic disease, characterized by paroxysms of difficult breathing, with great wheezing, and a dreadful sense of constriction across the chest; each paroxysm terminates by the expectoration of a more or less abundant quantity of mucus. It is now considered a mucus disease and dependent upon some hereditary taint or condition of the mucus system.

Symptoms—A paroxysm generally occurs in the night, particularly from midnight to early morning; the patient wakes suddenly with a sense of suffocation, springs up in bed, and assumes various postures; or he even rushes to the open window, where he leans forward on his arms, employing all the muscles of the neck, back, and chest to assist respiration; and, wheezing loudly, from the great obstruction to the entrance and exit of air, labors for breath like one struggling for life. The countenance bears evidence of great distress; the eyes protrude; the skin is cold and clammy; the pulse small and feeble, the perspiration stands in large drops on the forehead, or runs down the face, and he often looks imploringly, sometimes impatiently, at his medical attendant for relief from misery. At length, after an uncertain time, one or two hours, or longer, there comes a remission, cough ensues, with expectoration of mucous and some small round pearls like mucous but containing no pus or watery matter. Sometimes we have attacks of what is called *dry asthma* which is unattended with any secretion of mucous and the paroxysm ceases, permitting the sufferer to fall into the long-desired slumber.

The attacks are unattended with fever, but are generally preceded by some disturbance of the digestive organs. They are often periodic and sudden, and attended with distressing anxiety.

Causes—Irritation of the nerves of respiration, resulting in most cases from deranged digestion, from the intimate nervous connection existing between the digestive and the respiratory organs; it may also be produced by changes in the moisture of the atmosphere, or, again by the introduction of some poisonous but subtle material floating in the atmosphere, and brought by inspiration into contact with the lungs, such as the minute particles, or the mere odor, which passes off from powdered ipecac or hay; the vapor of sulphur or sulphurous acid gas, or chlorine. Asthma is

often associated with the gouty or rheumatic constitution. Excessive exertion and mental emotion frequently bring on a paroxysm. Mountain air will bring it on with some people. Sometimes the driving back of an eruption will produce it. After it has once occurred, asthma is easily reproduced by indigestion, especially after *late dinners* or *suppers*. A frequent repetition of the fits leads to a dilated state of the air-passages and air-cells of the lungs, dilation of the right cavities of the heart, and the general displacement of that organ which uniformly exists in persons who have long suffered from this disease. The disease may also be hereditary.

Remedies—1. Persons who are subject to the asthma usually know when a fit is coming on. There is often languor, drowsiness, depression of spirits. The warning of an approaching attack should receive prompt attention. Soak the feet in warm water, and endeavor to get up a perspiration by drinking warm herb-tea. By immediate attention, a fit may frequently be averted. As soon as you get your feet out of the bath, wipe them dry, and put on good, warm, woolen stockings, or socks, and commence walking about the room. Breathe slowly, and take long breaths. The great probability is, that, if this does not keep off the attack entirely, it will, at least, make it less severe.

2. Smoking the leaves of the blue gum (*Eucalyptus*), four or five times a day, has proved an effective remedy in this disease, and performed some remarkable cures.

3. Another remedy, that has been used with success and produced unexpected cures in desperate cases, is the *lemon*. The patient should eat two or three of them daily.

4. The tincture of *lobelia* is also a remedy of much importance in this disease. It should be taken in doses of one-half to one teaspoonful every half-hour or hour, until relief is obtained, or sickness or vomiting is produced.

5. Take *saltpetre*, dissolve it in water, and wet a piece of brown paper in this solution. Let the paper dry, and then wet it with *origanum oil*. Cut the paper into long strips, convenient for use. When you feel a fit of asthma coming on, burn a few of these strips, and hold them so that you can inhale the smoke. Take long breaths during this time. Even while the fit is on, great relief will be obtained in this way.

6. Saltpetre used in the following manner is also very efficacious:

Soak some blotting-paper in a strong solution of it; dry it, take a piece about the size of your hand, and on going to bed, light it, and lay it upon a plate in your bedroom. By doing so, persons, however badly afflicted with asthma, will find that they can sleep almost as well as when in health.

7. Beet-root juice in tablespoonful doses is highly recommended by European physicians, for asthma.

The quickest prevention of an attack is a pearl of nitrite of amyle, broken in a handkerchief and inhaled.

8. Mix two ounces of the best honey with one ounce of castor oil, and take a teaspoonful, night and morning. This has often proved very efficacious.

9. *To prevent lamps from being pernicious to asthmatic persons*, let a sponge, three inches in diameter, be moistened with water, and suspended by a string exactly over the flame of the lamp, at the distance of a few inches; this substance will absorb all the smoke emitted during the night; after which, it should be rinsed in warm water, by which means it will be again rendered fit for use.

10. **Grindelia Robusta for the Cure of Asthma**—This is a new remedy for the cure of this disease, and is very highly extolled. Dr. Cleland, of Kewanna, Ind., in reference to it, says, "I cannot speak in too high praise of *Grindelia Robusta*, in asthma." Dose of the fluid extract, fifteen to thirty drops, three times a day.

A source of great relief, if not a positive cure, is obtained in smoking stramonium leaves, now sold by all druggists, put up in a convenient form of cigarettes—but the leaves may be smoked in a common pipe, with equal results.

11. Nitro-glycerine pills, one ($\frac{1}{100}$) three times a day is absolutely curative. It is worth the trouble of sending to a large drug store to get them.

ABSCESSES.

Under this head, there are but two forms which should come within the scope of a work intended for families, and these are boils and carbuncles. Other abscesses, such as those of the liver, ear, tonsils, lungs, kidneys, etc., should come under the care of the surgeon.

BOILS.

Remedies.—1. They may be prevented from coming to a head by gently rubbing them, every three or four hours, with the tips of the fingers, moistened with spirits of camphor, and then covering the spot with flannel soaked in camphorated oil, which is prepared by adding one teaspoonful of spirits of camphor to one tablespoonful of sweet oil.

2. They may likewise be prevented, or "scattered," by keeping applied to them a cloth, constantly wet with spirits of turpentine, or tincture of arnica. These efforts to prevent, or "scatter," a boil should only be made when it first makes its appearance.

3. To prevent the tendency to boils when they return crop after crop, there is nothing superior to lime-water. Take a wine-glassful (or four tablespoonfuls) three times a day, for three or four weeks. This will entirely check the tendency to their return. The method of preparing limewater will be found amongst the recipes in another part of this book.

4. The following is a very effective application for a boil: Make a poultice, of equal parts of wheat-flour and ginger, and apply. It will soon "draw" the boil to a head. If those who are troubled with boils will drink a tea made from a handful of *burdock*-seed, no more will appear. If the seed cannot be obtained, use the root.

5. Very strong *sassafras*-tea is an admirable remedy for the same purpose.

6. The following will cure, if early applied, both boils and felons: Stir into the white of an egg from one-half to one teaspoonful of powdered *Spanish flies.* Apply on brown paper, covering entirely over the painful spot, and bind it on with a thin cloth or handkerchief; after which, apply a cloth, folded several thicknesses, saturated with hot vinegar and salt, and keep this applied continually. This brings all the particles of pus to the inner surface of the skin, when it can be removed.

7. When boils are not "scattered" or dispersed, they should be brought to a "head" as speedily as possible. To effect this purpose, poultices must be applied. The kind of poultice is immaterial, for the reason that it is the heat and the moisture that cause it to "ripen." *Flax*-seed meal, bread-and-milk, or soap-and-sugar are among the best, and are made by wetting and heating, and are to be kept on as warm as can be borne. When the boil comes to a head, it may be opened or left to itself to break. The best remedy to abort a boil at its inception is the strongest solution of carbolic acid applied to the skin when it commences to form.

CARBUNCLES.

These generally occur on the posterior portions of the neck & back, where vitality is less active.

Symptoms—It first appears as a hot, hard swelling, harder than a boil, accompanied by a burning, dull, throbbing sensation. As the red swelling gradually increases, the skin covering it assumes a purple or brownish-red tint, and, in a few days, softens, suppuration taking place at *several points.* The matter is thin, watery, and scantily discharged; but if pressure be applied, a thick, glutinous fluid may be squeezed out. If large, and especially if seated on the head, there is violent fever, delirium, and great and even fatal prostration may result.

A carbuncle differs from a boil in its greater size; its broad, flat

shape; in usually appearing singly, in giving way and discharging from *several openings;* and in the dusky redness of the inflamed skin.

Causes—A disordered condition of the blood, usually met with in a *debilitated* state of the constitution, as the result of chronic, exhausting diseases, or severe, acute maladies; great alteration in habits or diet; long continued fatigue, etc.

Remedies—1. Poppy-leaves, when they can be obtained, make a very excellent poultice. It is prepared by adding a little *flax*-seed meal to these leaves, after they have been steeped. The poultice may be used several times by heating and moistening again, and it will be as good as at first.

Carbuncles are very slow in coming to a head, and they often have several openings. They should be freely opened with the knife, cutting deep into them, in two directions, in the form of a cross, after which the poultice should be continued until the core comes out. This should be done before they are fully ripe.

2. Another good poultice is made as follows: Take equal parts of ground *linseed* and slippery-*elm* bark, add a sufficient quantity of rain-water, and simmer until the linseed becomes soapy, and a mass of proper consistence is formed. When it is cool, to every half-pint of the mass, add a wineglassful of good yeast, and an equal amount of finely powdered charcoal, and let it be well mixed; apply it to the carbuncle tepid, and renew before it becomes dry. This will be found to have a very salutary effect upon the sore, to lessen the pain, swelling and inflammation, while at the same time it has a tendency to promote suppuration, or mattering.

If the poultice last mentioned should, in any respect, disagree with the patient, as it may possibly do, in the first stages of the complaint, it may be omitted, and one made by boiling the bark from the root of *sassafras*, and mixing the elm-bark with this decoction. It makes an excellent poultice for this and other kinds of inflammation.

ITCHING OF THE ANUS.

Causes—This difficulty may be caused by piles; in that case there is generally swelling and soreness; for its relief consult the section on "Piles." When it is caused by pin-worms, there is generally a creeping and tingling sensation, and on examination the worms often can be seen, and they are frequently found on the passages from the bowels.

This itching around the anus is likewise caused by a very fine eruption of pimples; they may be scarcely perceptible. It is frequently complicated with an excoriated, or fissured, or broken condition of the structure of the anus.

Frequently, itching of the anus is only a symptom of derangement of the liver, or of some portion of the digestive apparatus. The primary cause must, therefore, be obviated.

1. A good means for alleviating this affection is to take four tablespoonfuls of *glycerine*, and two teaspoonfuls of *tar*, and simmer together for a short time, and apply twice a day. The best and at the same time the simplest cure is to sit in very warm water, repeat if necessary.

2. In very aggravated cases, a strong solution of tannin applied is very efficacious.

3. Some forms of this difficulty have been cured by using, as a wash, a decoction of *smart-weed*.

4. Take two and a half drachms of chloral hydrate, dissolved in four tablespoonfuls of water, and apply a little of this mixture when the itching occurs, and it will afford immediate relief.

If the itching originates from worms, the reader is referred to the article on that subject. A solution of borax in water, one teaspoonful to an ounce will often allay the itching. Continuous and thorough working after stool will often entirely alleviate this itching.

See Itching Piles.

BRONCHITIS, OR INFLAMMATION OF THE BRONCHIAL TUBES.

Symptoms—The acute bronchitis generally commences, like a common cold or catarrh, with lassitude, chilliness, slight cough, oppression and tightness of the chest, with some fever. As the disease increases, these symptoms increase, with great anxiety of the countenance; respiration is more laborious, attended with a wheezing or rattling sound, as if the air were forced through a narrow aperture clogged with a viscid fluid. It is generally attended with hoarseness; respiration is more difficult in the recumbent than in the erect position. At first the cough is dry, but soon afterward a copious secretion of viscid transparent mucus, resembling the white of eggs, occurs, and with it considerable abatement of the violence of the cough ensues. But when the inflammation is about terminating without suppuration, the matter expectorated loses its transparency, and becomes mixed with yellowish, white or greenish masses, which are scanty at first, but continue to increase more and more, until at last they compose the whole of the expectoration. There is a severe pain in the forehead, which is aggravated by coughing. When the secretion of mucus in the bronchia is very copious, and breathing is much obstructed, considerable drowsiness occurs. The tongue is white, and covered with transparent mucus; the skin is dry, and its temperature generally but very little above the natural standard.

This disease consists in an inflammation of the lining membrane of the bronchial tubes, or air passages. Persons who are in the habit of speaking much, or singing, are very liable to it, especi-

ally in cold weather, or in changeable climates. It may be either acute or chronic. The *causes* are the same as those of inflammation of the lungs, and, where there is a predisposition to it, long or loud speaking or singing may bring on an attack.

Remedies—1. A decoction of the seeds of the common sunflower gives great relief, in a great majority of the ordinary cases of bronchitis, and many permanent cures have been made by this remedy alone. To effect a cure from its use, requires time and patience. It will be found a pleasant and reliable remedy. It has been prepared in the following form, and in some cases it acts better than when given alone: Bruise any quantity of the seeds, and add strained honey enough to cover them. Simmer for one hour, strain, and, when cold, add one teaspoonful of the tincture of bloodroot to each teacupful of the honey. Dose, a teaspoonful, four or five times daily. This is not excelled for any form of bronchitis, and has been the means of curing many cases. Tinc. of aconite in drop doses, every hour, for four or five hours, will abate the fever and irritation.

2. Another excellent preparation is the following: Take three ounces, each, of Yerba Santa and Grindelia Robusta. Put into a pint and a half of water, and steep to one pint; strain, and, while hot, add one pound of white sugar. Dose, one teaspoonful, four or five times daily. Those who have tested this new remedy pronounce it prompt and effective. Where the crude drugs cannot be obtained, use the fluid extract, of each, four tablespoonfuls; sirup made from sugar, eight tablespoonfuls. Mix. Dose, one teaspoonful, four or five times daily. This and the foregoing, are new remedies and among the best in general use, for the cure of this disease.

3. Take Flax seed.....1 teaspoonful.
Slippery elm.....1 ounce.
Thoroughwort.....1 ounce.
Licorice.....1 stick.
Water.....1 quart.

Simmer slowly over the fire, until the strength is extracted. Strain, and add one pint of the best vinegar, and half a pound of loaf or white sugar; after which, simmer them all well together, and, when cold, bottle tightly. Dose, one tablespoonful, two or three times a day. It is not only valuable for bronchitis, but for all difficulties of the throat and lungs. Many lives may be saved every year, by this cheap and simple remedy, as well as thousands of dollars, which would otherwise be spent in the purchase of nostrums which are both dangerous and useless.

4. Prof. I. J. M. Goss says, "Firwein has proven very successful. In chronic bronchitis and consumption, it has proven one of the best of remedies, palliating the cough, toning up the digestive and assimilating organs, and thus preventing undue waste of tissue."

Several physicians report cases of chronic bronchitis cured by firwein. The dose is from one to two teaspoonfuls three times a day.

5. *Dr. Graves, of St. Louis, states: "After treating myself with the whole category of professional remedies for bronchitis without any lasting benefit from any of them, I was induced to try the 'Rock and Rye' remedy as it is called, and to my great surprise it cured me."* It is prepared as follows: Dissolve a quantity of rock candy in rye whisky and take a teaspoonful before each meal, and another one before retiring at night. In very aggravated cases take it every hour or every two hours.

6. *It has recently been discovered that onions is one of the most prompt remedies known for the cure of bronchitis. Thousands have been cured by this simple remedy. Patients who had even been so reduced from the disease that they were scarcely able to talk, have been cured with them.* Slice the onions, sprinkle sugar over them, let stand an hour or two, then mash and press out the juice. Dose, one teaspoonful three times a day and before retiring at night. In severe cases, every three hours.

7. *Dr. Hall gives the following: "Put a tablespoonful of powdered ipecac-root in a vial, pour upon it two tablespoonfuls of any kind of spirits, shake it well daily for several days; it can be used in ten minutes after the first shaking; let it settle and take from ten to twenty or more drops on a lump of sugar, or in a little water, or as it is. Take enough to cause some nausea."*

This tincture of ipecac should be well stoppered; it is the safest, simplest and best remedy ever known for a troublesome, dry, hacking cough of any kind; it has no after ill effects, is of little bulk, can be carried in the vest-pocket, and may be always relied upon to loosen phlegm, if there is any phlegm to loosen, and anything can loosen it. Sal ammoniac in 5 gr. doses, is excellent in chronic bronchitis. A favorite remedy of a prominent physician in Chicago, is equal parts paregoric and glycerine. Dose, a teaspoonful, every hour for an adult.

Accessory Measures—The patient should be kept in a warm atmosphere (65 to 70 degrees), which should be moistened by steam or evaporation of water from shallow dishes placed near the bed; or water in a kettle may be kept boiling on the fire, so as to moisten the air by its jet of steam sent into the room. Ventilation of the apartment, however, should not be neglected.

Hot linseed-meal poultices applied to the chest and back are beneficial, as they relieve congestion.

Diet—During an attack, give gum-water, barley-gruel, beef-tea, jelly, etc. Cold water, in frequent draughts, favors the healthy action of the skin, and is the most appropriate beverage. In feeble children, exhaustion is liable to come on, requiring nutritious support. During convalescence, undue exposures must be guarded against, until the constitution has been strengthened and inured by warm bathing, gradually reduced to cold as the reactive power of

the child permits. The sleeping apartment should be large, not occupied by more than one other person, should be well ventilated, and properly aired every day. The diet should be nutritious, and easy of digestion, avoiding acids and greasy food.

"Have your meals at regular hours. Observe great regularity in all your habits. If you have three meals a day on week-days, you should have three meals on Sunday, and at the same hour in the day. Eat enough to satisfy hunger, but not too much for supper. A neglect or failure to eat dinner for the sake of Sunday politeness may cause you many hours of suffering."—*Dr. J. C. Caswell.*

BILIOUSNESS.

People who are in the habit of taking cathartics or emetics, when the period arrives for their usual "cleaning out" are generally sure to be troubled with biliousness.

Symptoms—There is more or less fullness, sensation of a load or other symptoms of uneasiness, in the region of the stomach. There is languor, dull headache or sleepiness, and sometimes slight yellowness of the eyes and skin.

Remedies—1. Take, daily, the juice of two small lemons or one large one. Use no other medicine, and you will find your difficulty will abate much sooner than if you take active, or strong medicine. This is an invaluable remedy for this difficulty.

2. "One-half teaspoonful of saleratus, or bi-carbonate of potash, in a tumblerful of cider, taken morning and evening, is a very good palliative remedy."—*Dr. Warren.*

3. **Table Salt will Cure Biliousness** *in two days when used as follows:* dissolve a tablespoonful in a pint of boiling water, when cool take two tablespoonfuls before meals, morning and evening. This is especially effective if constipation exists with yellow complexion. *Dr. Napheys.*

If a brisk cathartic is taken, and the stomach and bowels relieved of their loaded condition, after which a prudent course of diet is observed for a few days, the bilious conditions of the system will be entirely removed and the patient will be well.

4. Put a teaspoonful of nitric acid in a pint of water, and take a tablespoonful after meals, it will clear up the skin and improve the appetite.

5. A tea, made of the bark or berries of the black *alder*, is also very effective.

Accessory Treatment—Much exercise should be taken, to excite a healthy action of the digestive organs. It will be absolutely necessary to abstain from all kinds of greasy meat, sweet articles, pastry, and rancid butter; likewise *coffee* and *chocolate*, both of which increase these affections.

BLOODY URINE.

Causes—This difficulty frequently occurs from falls, bruises or some violent exertion, such as hard riding and jumping; but it often takes place in consequence of a small stone being lodged either in the *ureter* or kidney, which, by its size or irregularity, wounds the surface of the part it comes in contact with; in which case, the blood discharged is most usually clotted, and deposits a sediment of a brown color.

A discharge of bloody urine, when proceeding from the kidney or ureter, is commonly attended with an acute pain and sense of weight in the back, and some difficulty in passing water; the urine which comes away first being muddy and high colored, but afterwards becoming transparent, and of a natural appearance. When the blood proceeds immediately from the bladder, it is usually accompanied with a sense of heat and pain in the lower part of the abdomen.

This complaint is distinguished from the high-colored, red urine, attendant upon many diseases, by the deposit of clotted blood, and by its staining linen of a red color.

Remedies—1. The principal remedy, in this complaint, is the marshmallow. A strong decoction is to be made of the leaves, buttons, or roots, and drunk freely. Usually, no other remedy is needed in the treatment of this disease.

2. When the above cannot be procured, the next best is the peach. Use a decoction of the leaves, or, when they cannot be had, use the bark.

3. Another excellent remedy is the yarrow. Drink of it freely twice a day.

4. Still another is the leaves of the *Epigæa Repens*, or May-flower, steeped and drunk freely.

5. When ulceration is the cause of blood appearing in the urine (which is known by its being attended with a discharge of matter), add five drops of the oil of turpentine to a teacupful of marshmallow tea, and take twice a day. If this cannot be had, another remedy, which is almost as effective, is the buchu, which can be obtained at all drug-stores. Steep a handful of the leaves in a pint of water, after which add a tablespoonful of gum-Arabic. Of this, take a tablespoonful twice a day. When bloody urine is occasioned by the mechanical action of a stone in the bladder, or in the ureters, or kidneys, employ the treatment recommended for those complaints. In all cases stimulants, such as liquors, tobacco, tea, coffee, etc., should be avoided.

OFFENSIVE BREATH.

This may be caused by a deranged stomach, abuse of mercury, decayed teeth, diseased gums, or want of cleanliness.

Remedies—1. One or two teaspoonfuls of powdered charcoal, taken three times a day, will relieve this difficulty in many cases.

2. The following preparation will at once sweeten the breath. It acts as a disinfectant, and will not injure the stomach, but it will be benefited by the preparation: To eight or ten drops of the saturated solution of chloride of soda, add one-half teacupful of water. Take it every morning before breakfast. If the offensive breath arises from defective teeth, add one-half teaspoonful of the chloride to half a tumblerful of water, and rinse the mouth with the solution. The salicylate of soda, ten grains in a glass of water, is excellent for the purpose.

Offensive breath is often due to an unhealthy condition of the stomach, or to decayed teeth. Remove these difficulties, and the breath will again become sweet.

LATEST METHOD OF CURING BALDNESS, AND PREVENTING HAIR FROM FALLING OUT.

Causes—Excessive action of the brain, such as intense study, great mental anxiety, etc., producing unnatural heat of the brain-surfaces, thus causing the hair to drop off.

Remedies—People are often led to try many so-called specifics, to prevent the hair falling off, but they are generally either useless or worse. Doubtless, there are many thousands of pounds of hog's fat sold every year as bear's grease, etc., to cause the hair to grow abundantly and prevent its falling off. Washing the head often with warm salt water and combing it with a fine comb, together with regular and temperate habits, are the best preservatives and restoratives of the hair.

The head should be as thoroughly washed as any other part of the person, and that weekly. When the hair is very thick and long, its roots can be washed without wetting its entire length. This is important for ladies and those children whose custom and fashion it is to wear the hair long. The outside of the head has more to do with its inside than many people suppose. A muddy and confused mind is often the effect of external dirt and neglect. The natural perspiration is thereby suppressed, and serious evils are sometimes the result. Comfortable caps and hoods should always be worn. The head should be dressed as lightly as is consistent with comfort. Neuralgia and inflammation of the brain are very often the simple consequences of following absurd and unnatural fashions in the dressing of the head.

Look at one of these "martyrs of fashion!" Her head is loaded with hair, natural and artificial, and covered, under this load, with foreign mixtures, in the shape of hair-oils, perfumes, etc.,

while over all this is the bonnet, with a vail often attached and drawn closely over the face, to shut out the life-giving air from the poor starved lungs.

A very common cause of injury to the hair-glands is the practice, among families as well as barbers, of using the combs and brushes of others. A comb or brush for the head should no more be used in common, by two or more persons, than a brush for the teeth. Many diseases of the hair and scalp originate in this way, as well as from the habit of wearing the hats, bonnets or head-dresses of others. Parents, who take an interest in everything which conduces to the welfare of their children, should be careful that each is supplied with its own comb and hair-brush, and that these are never interchanged.

The following is one of the best remedies in general use for baldness. It has produced a luxuriant growth of hair for persons who have been bald for many years, and will nearly always restore it, if the hair-follicles are not dead.

Tincture of Spanish fly (*Cantharides*), one ounce; aromatic spirits of ammonia, one ounce; oil of rosemary, one drachm; alcohol and water, of each, two tablespoonfuls. Mix. With a sponge, rub this mixture well over the scalp, so that it will come in contact with the roots of the hair. The use of it may have to be persevered in for six months or a year, and should be applied twice a week.

A celebrated physician called our attention to a fine head of hair succeeding baldness, which was obtained by a moderate use of kerosene, gently but persistently rubbed on the bald spot.

Hair Invigorator—Wash the head once a day with warm strong sage tea. It will promptly check the falling out of the hair. If the use of this be continued for a sufficient length of time, it will make the hair thick and strong.

Girls' Hair—This should be kept cut short until they are twelve years of age, allowing it to curl if naturally inclined to do so, but should never be tortured into wisps and kinks by hot irons, or other violent means. As it becomes longer, in after life, it should be twisted, very lightly, into a loose coil, and the ends, if tied, should be fastened loosely with a ribbon.

Men's Hair—This, when it begins to fall out, may sometimes be saved by keeping it cut very short. Brush it well when quite dry, then wash with warm soapsuds, rubbed well into the scalp, and wipe the whole hair with a soft towel. Then, in the same manner, rub into the scalp a little bay-rum or pure brandy. This should be done twice a month. The scalp should be brushed well two or three times a week.

Oiling the Hair—The more the hair is oiled, the more oil it will require; and it will only serve to keep a layer of grease and dust all over the scalp, which will prevent the air getting to the roots of the hair, and thus destroy its vitality. Nothing should be

allowed to touch the hair of children, except soft, pure water; and, if it were regularly cut, every six weeks, from three years of age to fourteen, and the scalp kept clean, as above directed, the growth of the hair would be so strengthened that girls of twenty would have healthy, glossy and abundant hair of their own, instead of having to rely, for this natural ornament, upon the artificial contrivances of the hair-dresser.

Hair-Oils—These are nearly all made of hogs' lard, as the chief ingredient. The least objectionable preparation is made of common castor-oil, two tablespoonfuls, in a pint of alcohol. No better hair-oil than this can be made. It may be scented or colored, but the pure preparation is best.

Some prefer a glycerine hair-dressing; which is made by dissolving three tablespoonfuls of glycerine in nine of rain-water, and one of rose-water.

One of the most harmless washes, to cleanse the scalp effectively, is powdered borax. Put two even teaspoonfuls into a teacupful of warm water, then wet the whole scalp with warm water, hold the face over a basin, keep the eyes shut, dip the ends of the fingers into the borax-water, and rub it well into the scalp. After having rubbed the whole scalp into a lather, wash it off with fresh water, and then wipe dry with a soft towel, but do not comb until the hair is quite dry. Brush the hair at night with a stiff brush five or ten minutes, it stimulates the scalp and excites the oil-glands.

HAIR INDICATIVE OF CHARACTER.

The character of persons is sometimes indicated by the color of the hair.

The bilious temperament, black hair and dark skin are generally found associated. These indicate strength of character and sensuality.

Fine hair and dark skin show purity, goodness and strong mind.

Stiff, straight and abundant black hair and beard are usually combined with strong, unyielding, straight-forward and rather bluff character.

Fine, brown hair indicates exquisite sensibility, with a strong will for what is good and right, when unperverted.

If the hair is straight and lies flat on the head, the temperament is melancholy, but you may safely rely on that person, be it man or woman.

If the hair is coarse, black and sticks up, there is not much sociability, and much that is stubborn, sour and harsh, in the character.

Coarse, red hair indicates much fire and energy, with unusual strength and firmness.

Auburn hair, with a florid face, gives purity, intensity, and great capacity for enjoyment or suffering.

Fine, silky, pliable, easily dressed hair indicates delicacy, sensibility and goodness.

Hasty, impetuous and rash people have crisp, curly hair, but if it is straight and smooth, even and glossy, a warm heart, a clear head and superior talents are indicated.

White hair, as a general rule, indicates a good, easy, lazy fellow.

The hair, naturally parting in the middle and falling on either side, indicates womanly refinement, purity and delicacy. When the hair extends and lies on the forehead in rings, it indicates a frank, open, and genial nature.

The light-haired races are the thinkers, the poets and the artists of the world.

Dark-brown hair combines the two, and is the most desirable.

To sum up:

Black hair indicates physical strength.

White hair, mental vigor.

Red hair, a fiery temperament, passion and devotion.

Wavy hair, a pliable, yielding, accommodating disposition.

Straight, stuck-up hair, stubbornness and fidelity.

Very smooth, close-lying hair is "Oily Gammon."

BUNION (Bunion.)

An enlargement of the membranes of the great or little toe chiefly the former, with more or less deformity of the joint is called a bunion.

Cause—*The pressure of narrow-pointed boots or shoes,* throwing the great toe over or under the contiguous toes; in this way a sharp angle is made on the inner side of the joint of the great toe, on which the bunion is formed.

Symptons—Pain, redness and swelling of the part, which soon subside on removal of the cause. Should, however, undue pressure be continued, the symptoms increase until pressure becomes unendurable.

Remedies—The direction of the toe must be changed by wearing properly shaped boots, made with the inner side of the sole straight the entire length of the toe. If irritation be accidentally excited in the part, a daily warm foot-bath should be used, continuing in the bath until the integuments are thoroughly relaxed and softened, or, in very severe cases, a bran poultice to soften the parts. Then a piece of lint, saturated with melted lard, applied

and moistened from time to time with the same. At the same time remove the pressure caused by the shoe or boot, and a cure will soon be effected. A poultice of slippery elm or flax-seed is very good. In other respects, treat them the same as a common corn. Cut a hole in a piece of chamois skin and wear over a bunion.

BACK-ACHE OR WEAK BACK.

This is due to over-taxing the muscles and nerves of the back, remaining long in a stooping posture, over-lifting, and sometimes, through sympathy from a kidney difficulty. I have received the thanks of hundreds for the relief they have obtained from this difficulty by the use of the following plaster.

Gum galbanum	2 ounces.
Rosin	1 ounce.
Powdered camphor-gum	½ ounce.
Opium, powdered	8 scruples.
Alcoholic extract of belladonna	2 drachms.

Place the galbanum and the rosin together in a dish over the fire, and heat slowly until melted; then add the belladonna, and constantly stir it to prevent burning, which must, on no account, be permitted, as it destroys the plaster. When these are well mixed, stir in the opium and camphor, and immediately remove the dish from the fire, continually stirring the contents until they become cool and well hardened, when they are ready for use. Cut a piece of tanned sheep-skin, six by eight inches, warm the plaster so that it will spread; and, with a table-knife, spread it on the skin thinly, leaving half an inch of the border untouched by the plaster, so that it will not stick to the clothing. All who use this remedy will be sure to confess that it is the king of all plasters for backache, or "lame back."

A strong tea, made of what is called Devil's Bit, or button snake-root, is likewise very useful for giving relief in affections of this kind. Dose, half a teacupful three times a day. This malady when in females, most usually originates from the whites, falling of the womb, or some derangement of the kidneys or spine. Sponge the back night and morning with brine and then rub briskly with rough towel.

In case of lumbago a specific is black cohosh steeped and taken in teaspoonful doses four or five times a day. When it is produced from any of these causes, the treatment must, of course, be directed to their removal. Sometimes it is owing to excessive sexual intercourse, and the weakness will only disappear, when the patient becomes more temperate in this particular.

Weak Back—1. Burgundy pitch, makes a superior strengthening plaster for a weak back. It should be made exceedingly large, and worn as long as it will stick.

2. Add about one-half of a beef's gall to a pint of alcohol, and bathe the back with the solution frequently. It often acts like a charm.

Avoid tight dresses and use of corsets.

3. Take, of hemlock gum, add one fourth the quantity of white turpentine, and dissolve. This forms an excellent strengthening and stimulating plaster. It is also employed in chronic rheumatism.

CONSUMPTION (Phthisis Pulmonalis.)

Causes—The causes which produce this malady are very numerous. The following are the most general:

Hereditary disposition, narrow chest; scrofula, a state of the system indicated by a weak voice, and great sensibility; certain diseases, such as venereal, the small pox, and measles, particular employments, exposing artizans to dust, or to the fumes of metals or minerals under a confined and unwholesome air; violent passions, exertions or affections of the mind, as grief, disappointment, anxiety or close application to study, without using proper exercise; frequent and excessive debaucheries, late watching, and drinking freely of strong liquors; great evacuations, as diarrhea, diabetes, excessive venery, leucorrhea, immoderate discharge and also frequently the obstruction of the menstrual flow, and the continuing to suckle too long under a debilitated state; and, lastly, exposure to cold, either by too sudden a change of apparel, keeping on wet clothes, lying in damp beds, or exposing the body too suddenly to cool air when heated by exercise; in short, by anything that gives a considerable and sudden check to the perspiration. The more immediate or occasional causes are, bleeding of the lungs, inflammation of the lungs, catarrh, asthma and tubercles, the last of which are by far the most general.

Excesses or intemperance in eating, drinking, etc., and folly of dress, contribute to cause this disease. Thin dress, exposed chest, tight lacing till a female can hardly stoop or breathe; one minute in a heated ball room or crowd, in perspiration—the next in extreme cold air; a cough follows, and next the *hasty consumption.*

Another cause of this malady is, the confined and sedentary habits of males and females in cellars, factories, etc. The air inhaled is impure, and the chest contracted by the employment of corsets; the stomach, lungs, or liver soon become disordered.

Symptoms—The early indications are often obscure, and may appear at any age, but most frequently between twenty and thirty. The chief symptoms are *impaired digestion*, loss of appetite, red or furred tongue, thirst, nausea, vomiting, and, in rare cases, pain in the stomach; more or less *cough*, chiefly in the morning; hoarseness or weakness of voice; irregular *pains in the chest*; difficult breath-

ing on slight exertion; *debility*, languor and palpitation; *persistently accelerated pulse*; *heightened temperature; night sweats*, and *progressive emaciation.*

Cough is a prominent symptom. In the early stage it is dry, short and irritative, and most troublesome in the morning, or after exertion; the expectoration is usually small in quantity, and consists of ropy mucus; the cough may continue for months without aggravation or the appearance of any other symptom. In a more advanced stage, cough recurs during the day, and especially after slight exertion, being caused by the necessity for getting rid of the inflammatory products and disintegrated lung tissue, which then begin to accumulate. The mere existence of a cough, by no means proves that consumption is present, as it may arise from diseases of other organs than the lungs; neither does the absence of cough prove the non-existence of the disease.

Bleeding of the lungs frequently, but not invariably, occurs; it is a suspicious symptom, and often gives the patient the first intimation of danger; its occurrence either before or soon after the commencement of a cough always renders consumption probable, especially if the patient has received no injury of the chest, and has no disease of the heart, or of the uterine system. "But in the very great majority of cases," writes Niemeyer, "in which the first attack of spitting blood has not been preceded by cough, difficult breathing or other symptoms of pulmonary disorder, the lungs are free, and by no means the seat of tubercular deposit, at the commencement of the bleeding." The same author further remarks, "That bronchial hemorrhage is by no means so rare an event where there is no grave disease of the lungs, is shown, moreover, by the tolerably numerous cases in which persons, after suffering one or more attacks of bleeding of the lungs, regain their health completely, and, indeed, often live to an advanced age, and after death present no discoverable traces of arrested tuberculosis in the lungs."

Hectic fever, at length, makes its appearance, and its coincidence with the symptoms already mentioned confirms our diagnosis of consumption. The patient is feverish and flushed in the evening, and in the morning is found drenched with perspiration. The pulse is small and weak, uniformly too high, but greatly accelerated towards evening, reaching 120 beats in the minute, or more; "the beat being performed with a jerk, as if the result of irritation upon a weakened heart." The bowels are relaxed, especially in advanced stages of the disease, the diarrhea aggravating the effects of the sweating, and consequently the exhaustion is greater; the tongue is furred white or brown in the center, but unnaturally red around the tip and edges, and, immediately preceding the final break-up, is covered with the eruption of thrush. The urine deposits red, brick-dust or pink sediment, consisting of the urates of soda and ammonia; the skin is clammy, except during the evening increase of fever, when it is burning hot; the complexion is clear, the eyes are bright

and sparkling, and there is marked emaciation, especially as death approaches.

Curability of the Disease — It is supposed by most people that consumption is incurable, and nothing is more common than, when an individual is attacked with this disease he consigns himself to the grave and his friends prepare for his funeral. But we should not be too hasty in arriving at such a conclusion. We have many well-authenticated instances on record where consumption has been cured, either spontaneously or by proper remedial agents.

Indeed it is beyond dispute, that the lungs recover from disease the same as any other organ, though less frequently, provided the powers of nature are sufficient to bring about a healthy action; all which shows the propriety of pursuing a rational and judicious course of treatment; besides, it is our duty to alleviate disease when we cannot cure, and which can always be done, even in the worst stages of this formidable malady. The fact, that cicatrices, or scars, have been discovered in the lungs of persons on post-mortem examination, who had been cured of consumption, and who subsequently died of some other complaint, proves beyond dispute that the disease is curable.

Remedies—1. Elecampane, when used perseveringly, has frequently arrested this disease in its first stages, by taking one-half to a teacupful of the decoction, or tea, twice a day. At the same time strict attention must be given to the laws of health. Many persons, while undergoing medical treatment for consumption, as well as other diseases, pay no regard to these laws, trust all to medicine, and nothing to the general measures for the promotion of health. Hence, their medical treatment avails but little; and thus, oftentimes, they are prone to turn away in disgust or despair, at the failure of medicine to cure or relieve them, while one of the chief causes of failure may be their own carelessness or ignorance.

2. A London physician gives the following simple, yet somewhat singular remedy, which, he says, has been very successfully used in curing consumption in that city: Boil one-half dozen lemons soft—not too soft—roll them to press out the juice; sweeten until palatable; drink the whole during the day. Should they cause looseness of the bowels, or pain, reduce the number of lemons. Recovery is soon perceived to begin by the strength returning. Every patient should be apprised of the fact that many lives have been destroyed, in this disease, by taking strong medicine.

3. Taking half a pint of new milk, and one tablespoonful of the expressed juice of green hoarhound, each morning, has worked wonders in giving tone to the general health, relieving the soreness of the lungs, and often eradicating the disease, in its incipient stages.

TUBERCULOSIS
A PREVENTABLE AND CURABLE DISEASE

Tuberculosis, or what is commonly called "consumption," is chiefly spread from the home, which becomes principally infected by the filthy spitting habits of the patient resident therein. It is more widespread than any other disease. It is an entirely *preventable* disease, and the Board of Health calls upon all consumptives and their friends to assist in checking its ravages.

Consumption is a disease of the lungs which is taken from others. It is not necessarily the outgrowth of a cold; but a cold or any other lowered condition of the system makes a person more liable to the disease. It is caused by germs, so minute that they can only be seen with the aid of a powerful microscope. The germs usually enter the body in the air breathed.

The sputum, or matter coughed or spit up by a consumptive, contains these germs in immense numbers: frequently millions are discharged by a consumptive in the course of a single day. This sputum, spit upon the floor, wall, street or elsewhere, dries and is reduced to powder by a broom, the feet, etc., and floats in the air as dust. The dust particles contain the germs which find entrance to the lungs with the air breathed. Dust in a room or covered conveyance is more dangerous than dust out of doors, where many of the germs are killed by strong sunlight, heat and rain.

Carelessness in spitting reacts on the consumptive. Many a patient well on the way to recovery has re-infected himself by inhaling dust containing tubercle bacilli that he himself has expectorated. Both self-interest as well as that of the general public demand the greatest care in disposing of the sputum.

Undoubtedly one of the commonest ways of spreading infection is the unconscious ejection of particles of spittle containing the germs, during coughing and sneezing; and this can obviously be eliminated by always holding a handkerchief before the face during these acts.

The breath of a consumptive is not dangerous; it does not contain the germs. The danger lies solely in the sputum or matter coughed up. Hence, it is not dangerous to live with, nor work alongside a consumptive, if the rules given later in this article are strictly kept.

In a majority of cases until recently, consumption has proved fatal; it can, however, be entirely cured if it is recognized early and proper treatment is carried out. Treatment depends very largely upon pure air and an abundance of nourishing food. The temporary benefit said to be derived from the use of certain patent medicines has proved to be the stimulation caused by the excessive amounts of alcohol they contain. After the stimulation, reaction sets in and the patient is worse off than he was before he began taking the medicine.

If the personal rules are strictly carried out, a consumptive may not only do his usual work or some other, without giving the disease to others, but such occupation may improve his own condition and increase his chances of recovery.

While consumption is particularly prevalent in the crowded sections of cities and towns, it is by no means infrequent in the less settled districts, and even in the country. This is probably due to lack of proper ventilation as well as improper construction of the houses. It often happens in rural districts that a person whose daily work is carried on under the best conditions in the open air, will spend the rest of his time and particularly the hours of sleep, in close, stuffy rooms. This is suicidal. *The bedroom window should always be open.*

RULES FOR CONSUMPTIVES

If a consumptive is being cared for in a private home, there need be no danger of infection if the following rules are carefully adhered to, according to Dr. G. Kuss, who writes in the World's Health, a monthly review published by the League of Red Cross Societies.

"1. Compel the patient never to spit except into a receptacle which is emptied and disinfected daily.

"2. Accustom the patient never to cough in people's faces and to put a handkerchief in front of his mouth when he coughs.

"3. See that the patient has a bedroom to himself.

"4. Prevent dust in the house by not allowing dry sweeping.

"5. Keep the linen, clothing and bedding very clean. Especially sterilize handkerchiefs and prevent bedding being soiled with sputum. Clean clothes with a vacuum cleaner, or dust and shake them only in open air.

"6. Prevent the patient from kissing children especially. The younger the child, the greater the danger.

"7. Have the patient wash his hands before each meal.

"8. Patient must have individual drinking glasses, cups, knives, forks and spoons. These must be sterilized with boiling water after each meal.

"9. A consumptive should never swallow his sputum. Sputum swallowed may spread the disease to other organs. The hands should be washed and the mouth rinsed out before eating.

"It is not true that a house in which there have been cases of consumption can cause consumption years later. The tubercle bacilli in a house perish rapidly.

"It is not true that adults easily contract consumption by being near a consumptive. A close contact or a prolonged stay in an infected place is required.

"Never cough if you can help it. Coughing is nothing but a bad habit. Coughing is hard work. Cough can be repressed by will power. A drink of cold water will often help to control the desire to cough.

"A glass of warm water before breakfast will cause the bowel habits to be regular in many cases.

"Take four glasses of water a day between meals.

"While milk and eggs are good, they should not be eaten if they cause trouble.

"Geting fat does not cure tuberculosis.

"Sleeping in a well ventilated room is imperative.

"Sleeping out of doors is advised, but it must not be indulged in at the expense of comfort. Without comfort day and night, rest is impossible and rest is the basis of recovery.

"When fever is on, rest must be absolute. But above all in the treatment of consumption is the spirit. The business of the consumptive is getting well. While he is in the breakers, he must be selfish and lazy. When he is truly convalescent he must be helpful and unselfish. At all times he must "conquer by acquiescence."

All rooms or apartments which have been occupied by persons suffering from consumption, must, on death or removal, be thoroughly disinfected. No other person should be allowed to reside therein until this rule has been complied with.

A consumptive woman should not nurse an infant. It drains the strength of the mother and subjects the child to danger of infection.

Diet—Regarding the food question, the old method of crowding all the food into the stomach that it would hold has been discontinued by all progressive physicians. The best results can be obtained by eating three good meals a day, consisting of wholesome foods, such as meat, potatoes, bread, butter, beans, peas, milk, eggs, cheese, vegetables, fruits. It may be desirable to take an additional glass of milk or an egg between meals, provided that it does not overcrowd the stomach and spoil the appetite for the next meal.

Cod-liver Oil may be considered as an item of food, and its power in checking emaciation and improving the healthy tone of the muscular structures is now too well known to require commendation. Perhaps some of its usefulness depends on the iodine and phosphorus contained in the oil, thus forming a natural compound of food and medicine. It may be advantageously given in scrofulous affections and troublesome cough, especially if occuring in a family in which consumption has been fatal.

The best time to administer the oil is with, or directly after, food. If there be any difficulty in retaining the oil, it may be given just as the patient lies down to sleep. Tasty accessories will often disguise the flavor of the oil so as to prevent nausea.

Besides cod-liver oil, there are other animal fats and oils which, if they can be taken and assimilated, are certain to be followed with good results; such as rich milk, cream, butter, home-fed fat bacon and other substances rich in fatty matter. Cream is often of great value; to prevent its oppressing the stomach, a teaspoonful of cold,

strong, black tea may be mixed with it. Cream is, however, probably inferior to cod-liver oil and has not the same anti-tubercular effect, for the iodine which is present in the former is absent from the latter. These varieties are mentioned so that in the event of a change being desired, one may be substituted for another, as circumstances indicate.

Cod-liver oil is a food rather than a medicine, although the minute amount of iodine and phosphorus it contains may account for some of its curative virtues. It is especially valuable in the various forms of scrofula, and in all diseases which require fatty substances as food and iodine as a remedy.

In the treatment of consumption it stands pre-eminent above other remedies, for when given in suitable cases it checks emaciation and strengthens the muscular structures.

Bed Sore—The fear of developing bed sores from a long stay in bed was dispelled when we learned that they could be prevented by an occasional grain alcohol rub of the parts that are most liable to become affected, such as the shoulder blades and hip joints, or by the use of inflated rubber rings made for that purpose. (If the use of rings becomes necessary, it is best to use a size just large enough to encircle the tender spot and these should not be inflated any more than needed to lift the weight of the body.) In most cases the grain alcohol rubs are all that are needed to prevent bed sores.

About a tablespoon of mineral oil (Liquid petroleum) daily enables one to have regular bowel movements without much physical exertion.

The daily use of a mouth wash and throat gargle, consisting of soda bicarbonate (plain baking soda), about one-half teaspoonful in a glass of warm water, morning and night. This has been the means of preventing many colds.

SEPTICEMIA—BLOOD-POISONING
(Pyemia)

Blood-poisoning, technically termed pyemia, is the final result of some primary cause, like a wound or severe internal inflammation. In these cases, decomposed or rotting animal tissue or pus is taken up by the blood, making it so impure that the lungs are unable to purify it, and the whole system soon becomes poisoned.

Symptoms—The symptoms of blood-poisoning are innumerable abscesses or small boils in various parts of the body, alternate fevers and chills, pain, throbbing, swelling or redness about the wound some hours after the injury. Reddish streaks following the lymph channels up the arm or leg from the wound, sweating resulting in great exhaustion, and diarrhea.

It differs from impurities in the blood in the greater severity of the symptoms and in the causes which produce them.

Remedies—1. Dissolve a tablespoonful of sodium citrate and three tablespoonfuls of salt in a pint of boiled water; soak gauze or common cheese cloth in this; wring out to prevent dripping, and apply many thicknesses loosely upon and around the hand, foot or region affected, as hot as bearable, and change these compresses several times a day or night. If the wet compress be covered with some oiled silk, rubber or waxed paper, with a little cotton and a bandage, it will do for several hours, but should not be permitted to become dry—pour a little of the solution about the seat of the wound once or twice in the night, or if the wound is painful remove the dressing and soak the member for half an honr in a few pints of the solution, kept as hot as bearable, then apply a fresh dressing.

Such a dressing is the ideal first aid or home treatment for the condition described, be it from wound, boil, carbuncle, corn, callus, bunion, hangnail, runaround, felon or what not.

2. Japanese Remedy. When it is found that the blood-poisoning has set in, or when it is feared, use the following: To the juice of half a lemon add one teaspoonful of sugar and a half teaspoonful of water; take hot at one dose, and repeat every thirty minutes for the first three hours. After that take every two hours.

3. Quinine sulphate, one scruple; tincture chloride of iron, one and one-half drachms simple syrup, two ounces. Make mixture and give half teaspoonful four times a day.

4. Camomile tea will cure incipient blood-poisoning caused by the scratch of a rusty nail or other similar wounds. A Mr. Carhart, whose hand was swelled nearly to bursting, and red way up to his arm, was cured in two days. Pain subsided in an hour or two after the application. Soak parts in camomile tea and tie on a poultice made of steeped camomile blows, wet as possible.

To Prevent Blood-Poisoning—Wash wound with gasoline; apply tincture of iodine to the wound several times daily.

Accessory Treatment—The best accessory as well as preventive treatment is in the strictest attention to cleanliness, and the greatest care of the diet, which should be the simplest and most nourishing and in securing abundance of fresh air at all times to the sufferer threatened with blood-poisoning.

ATROPHIC RHINITIS

(Nasal Discharge)

Athropic rhinitis is characterized by abnormally roomy nasal passages (for both mucous membrane and bony walls are thinned and wasted) and by more or less purulent secretion and crusts. In some cases of atrophic rhinitis there is also a fetid odor, and then the disease is called ozena. It becomes established in the teens, if the nasal troubles of childhood have been thoroughly neglected.

Many cases of chronic purulent ethmoiditis are cured by the removal of diseased tonsils and adenoids.

Because of the abnormally broad, roomy, nasal chambers the victim of atrophic rhinitis cannot effectively clear the nose by blowing. And if the secretions are not carefully removed there is a tendency to develop ozena.

Remedy—A recent remedy is cane sugar, which is dissolved in water to be sprayed in the nose with the atomizer, or in stronger solution poured in with a nasal douche or spoon. To spray the nose, twice a day, following the cleansing irrigation, a solution of a rounded teaspoonful of sugar in two ounces of boiled water may be used. There is a double effect from the sugar treatment: (1) It favors the growth of friendly germs in the nasal passages and their active growth there tends to diminish the growth of pus-producing germs; (2) it induces a freer watery secretion in the nose.

HOOKWORM

In the United States, hookworm occurs almost exclusively in the south. Porto Rico, Georgia, Florida and Tennessee are the famous resorts of the disease.

Causes—The infection occurs in different ways. The invisible larvae may be swallowed in water or food polluted by the excrement of a victim of the disease; or in earth or clay—earth eating being a habit in some sections of the country; or by entering through the skin, the lesion being known as "ground itch" or "dew itch." The larvae reach the duodenum or small bowel, and there develop into adult worms, which cling to the bowel wall by means of the armature or hook. The worms suck blood, and perhaps secrete blood destroying substances.

Symptoms—The symptoms of hookworm disease vary in different cases, but the more frequent symptoms are severe anemia, dyspepsia with colicky pains, often relieved for a time by eating; lemon white skin, muddy or pearly "whites" of the eyes; lassitude, breathlessness on slight exertion, pale lips, sometimes feverish attacks, but not great emaciation. The preservation of flesh in spite of weakness and lack of ambition, gives the victim the reputation of being lazy.

The adult worms are about one-third inch long and have a marked angle or hook at one end. They are grayish white and look like bits of thread. They are to be distinguished from thread or pin worms, which have no hook. Eggs may be found in the evacuations by the aid of a microscope even when no worms are discoverable.

Other names for hookworm infection are miners' anemia, brickmakers' anemia, tunnel disease, and Egyptian chlorosis.

Treatment. 1—Thymol may be taken in capsules or pills, from two to eight grains at a dose, followed an hour or two afterward by an active dose of salts or other cathartic, but never castor oil.

2. Drs. Darling and Smilie, writing in the Journal of the American Medical Association, say: "The worm medicines of our fathers owed their efficacy to the preparations made from wormseed, a widely distributed weed. Oil of American wormseed (oil of chenopodium) may be taken in the dose of five drops on sugar, followed by a cathartic after an hour or two. Either remedy must be persistently used until no more worms or eggs are to be found. They are most effective if taken on an empty stomach."

Prevention—The prevention of hookworm infection is a question of common decency. There are in some places public school buildings which have no toilet facilities whatever, the fields and woods roundabout being considered sufficient. Decent disposal of the sewage protects the soil of the district from pollutions with the larvae. The public health service is eager to co-operate in any sanitary endeavors to this end. Citizens may learn exactly how to construct sanitary privies by communicating with the public health service.

Personal Hygiene includes, as in the case of any parasitic infection, careful washing of the hands before eating, and in this case, wearing shoes and never going barefoot in a region where the infection prevails. Children visiting in the south often become infected with ground itch.

SPANISH INFLUENZA (FLU)

A specific contagious epidemic affection, characterized by catarrhal inflammation of the mucous membrane of the respiratory tract.

Symptoms—Chilliness, sneezing, nasal discharge, intense pains in the head, chest, and back, cold perspiration, cough, expectoration, prostration, sometimes nervous manifestations, and increase of pulse and temperature, burning sensations in the eyes, and frequently nosebleeding.

Treatment—Health Commissioner Dr. Copeland of New York gives the following treatment for the Flu:

1. "Remain for half an hour in water as hot as you can stand it. The water should be kept running so that the heat can be maintained. While in the tub drink about a quart of lemonade, so hot that you will have to sip it slowly. Dry off well and get in bed between blankets. Remain there for an hour. The perspiration will then have ceased. Get up, sponge off with cold water and go back to bed, this time between sheets, and stay there until recovered."

2. A new remedy for Spanish Influenza has been discovered. It is a harmless application and said to be very beneficial. It is also recommended for all affections of the chest and throat. It is to make a fairly thick paste of quinine and pure olive oil and apply it externally. At the same time a dose of pure olive oil should be taken internally.

3. Dr. C. C. Booth, chief surgeon of the Republic Iron and Steel Co., advises workers of a method of treatment to avoid influenza. He prescribes a saline solution to be snuffed up through the nose and then expectorated. It is made by dissolving a teaspoonful of common salt in a pint of boiling water. After using this solution, Dr. Booth advises a spray of parausol oil in the nostrils and throat. An atomizer must be employed for this purpose and can be obtained from any drug store at slight expense. Employes were urged to follow this treatment night and morning as a preventive measure.

4. Take one-half pound of lard, 2 teaspoonfuls of turpentine, 2 of ammonia and one cake of gum camphor. Put in a pan on stove and heat. Wring flannel cloth out of mixture and apply to chest and back as hot as patient can stand it. Take laxative such as Rocky Mountain Tea. Another remedy is to use an onion poultice on chest and mustard poultice on calves of legs. Take laxative.

BOWLEGGED CHILDREN (Rickets)

Rickets is a disease of the bones occurring in children. It seems reasonably certain that there is an occasional case of congenital rickets, but when we think of the disease we think of the acquired type.

This starts, as a rule, in a baby that is getting along toward the end of its first year of life. The mother may have noticed for months that the baby was prone to sweat around the head, or that the child was not as strong as its leg and back development indicated that it ought to be. Maybe she noticed that the baby was pale and chalky as well as flabby.

Then comes the development of deformity,—perhaps bowlegs are noticed, or maybe it is the square forehead or flat topped head, or narrow chest, or some knobs along the breastbone on either side. These are all symptoms of rickets, but there is a remedy,—a simple remedy.

Remedies—In cod liver oil is found the something that babies with the above symptoms lack. For a little baby a half teaspoonful three times a day, and for a bigger baby a full teaspoonful —this is one way to overcome rickets. Three or four months of this treatment will correct the deficiency in the body of the child. This remedy, plus plenty of sunlight will accomplish the desired results. The average baby will take his dose of medicine and not complain. It is a pity to have any child suffer from rickets and its depressing and serious results when the remedy is so easy to provide. Give the cod liver oil, by all means; but let us also be sure to give the child the sunlight with its health-promoting qualities. Nothing is better for the growth and health of your baby than a sun-bath every day.

Diet—Since an insufficient amount of fat and an excessive amount of sugar or starch in the diet is such an important cause of rickets, the first essential in its treatment is to stop the use of milk substitutes and large amounts of farinaceous or grain foods, and to give the infant suitably modified fresh cows' milk if breast feeding is impossible. Fresh fruit juices, fresh vegetable soups, fresh meat broths, cooked fruit and vegetable pulps (strained through a sieve for young infants), scraped meat and thick gruels are necessary additions to the diet. Infants over ten months of age should have a little butter, and spinach is especially desirable.

APPENDICITIS

Appendicitis is a disease of the vermiform appendix commencing as a catarrhal inflammation of the mucous lining.

Causes—The predisposing causes are poor blood supply of the appendix (by a single artery), physical exertion, constipation, indigestion, cold, influenza, and sometimes foreign bodies. Nearly one-half of the cases occur between 10 and 30 years of age.

Symptoms—Pain, sometimes acute in character, directly over the abdominal wall; rigidity of the abdominal wall; tenderness, midway between the navel and spine; the tenderness becomes generalized if the appendix is infected; vomiting; constipation; rise of temperature and increase in pulse rate.

Diagnosis—Appendicitis is likely to be mistaken for acute indigestion, hernia, colic, abscesses of the liver, obstruction of the bowels.

Treatment. 1—The patient is to be put to bed and placed on a milk and custard diet. Rectal enemas are given, using warm water.

2. Wring a cloth out of hot water, then put on it 8 or 10 drops of spirits of turpentine. Apply this to the affected parts as hot as it can be borne; and renew with another as soon as it is cool. Continue with this until complete relief is obtained. Sometimes it has to be continued a whole night. This disperses the pus that is forming. After relief is obtained, cover the bowels, the parts affected, with a thin cotton cloth, and spread over this another thin cotton cloth that has been wrung out of coal oil. If this course is pursued, it will be very seldom that patients will have to undergo a surgical operation.

3. Wild yam is the most valuable remedy for this disease. The sharp pain in the lower right side of the abdomen caused by the inflammation and swelling of the vermiform appendix, is speedily relieved by the extract of wild yam. Pour a teaspoonful of the extract into a tumbler two-thirds full of water, and take a teaspoonful of the mixture every half hour until relieved, then diminish the dose to once every hour or two until cured. Dr. Hale, of Chicago, says: This is the best remedy that we have for this disease. The bowels should be kept open with magnesia.

The popular notion that this, so often fatal disease is caused by a seed or some other foreign substance becoming lodged in the vermiform appendix, or blind intestine, is no longer to be accepted as true, according to the expressed opinions of many leading physicians. The records of Bellevue Hospital, New York, show that in 140 operations performed for appendicitis, not more than five actually had a seed or other foreign substance lodged in the appendix. Recent investigations lead to the discovery that this disease occurs chiefly among men, rarely among women. It was also found that it very rarely occurs in men whose occupations requires them to stand upright or walk.

A quite frequent cause as stated by a Chicago surgeon is the habit of using *excessive* warm water injections to produce a movement of the bowels or to "flush the colon." Some of the fecal matter, or water carrying it, is thus forced up into the intestines, and this fecal deposit, lodging in the appendix, produces inflammation and serious trouble. Great care should be used in using rectal injections. Do not use water in excess, or force it up too far.

Says L. A. Merriam, M. D.: The fad for operation for what they call appendicitis exists especially in the minds of the profession, but real appendicitis exists not often in the abdomen of the patient. The operation itself is not the harmless procedure it is reported to be.

Operations lessen the patient's vitality, and often pave the way for more operations, sickness and suffering; while more than 95 per cent of cases so diagnosed can be better handled without using the knife.

In most cases so diagnosed, the trouble is not in the appendix, but in the colon or large bowel, and needs no operation with the knife. The pathologic prominence given to the appendix is not in harmony with the facts.

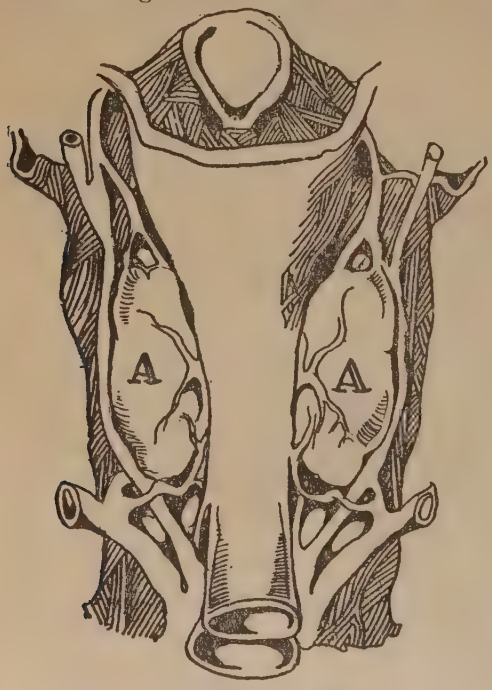
Removal of a healthy appendix (every day so common) does not cure a constipation or catarrhal condition of the colon, any more than the removal of a corn on the toe cures a toothache caused by ulceration.

"Don't let your appendix go if you can help it—it's an active little oil can, a lubricator for the intestinal canal, and you'd be badly off indeed without it." So says Dr. Arthur Bullard. He declares that the appendix is neither a "chance" nor a "left over" organ, and that inflammation of it can and should be cured in "more than ninety per cent" of cases, without recourse to the knife.

CONTROL OF THYROID (Goiter)

The power to control the activity of the thyroid gland, which is said to be the gland which controls growth, as explained by Dr. Starr of Toronto, Canada, who is one of the leading surgeons of the dominion.

Goiter may be prevented if fish and other sea food occupy a place in the diet of people living inland or in mountainous countries where goiter is most prevalent. We urge the more frequent use of sea food in the dietary as a natural means of supplying iodine, which the body requires for perfect health. Perhaps all iodine comes originally from the sea. Lobster contains 200 times as much iodine as beef or milk; shrimp 100 times as much; crabs and most sea fishes fifty times as much. These are important facts to be considered by people living in goitrous regions. They are facts established by chemists of the government.



How the Thyroid Gland Appears on Each Side of the Thorax and Windpipe in the Front Part of the Neck

Iodine treatments are effective agents against external goiters. Better care of expectant mothers will cut infant and maternal mortality and will give America a sturdier race.

Dr. McLendon at the University of Minnesota has recently contributed further proof that simple goiter is due to a deficiency of iodine in the soil. Iodine is fairly soluble. Therefore, the amount of iodine in the water of a region is a fairly good index of the amount of available iodine in the upper layers of soil.

There are three agreeable methods of using iodine. In a great many of the Swiss schools each pupil approaching the goiter age is given an iodine chocolate in the schoolroom each day. A second method is to add a little iodine to the table salt and to have every member of the family use it just as ordinary table salt is now used. Both iodine chocolate and iodine table salt are now on the American market.

WHY FISH IS SOMETIMES INJURIOUS AND DANGEROUS—WHEN FISH IS WHOLESOME—HOW TO TELL WHETHER FISH IS GOOD OR BAD.

Fish is one of the most nourishing and healthful as well as one of the most appetizing of flesh foods. But it is so

only when the natural conditions that make it good food are observed. When this is not done, and it quite often is not done because people are unacquainted with the danger, fish becomes an injurious and often even a poisonous article to take into the stomach. Salt-water fish and other sea food is a preventive for goiter.

Preventive—Very small amounts of iodine internally. A drop of tincture of iodine in a pint of drinking water every day for a month, twice a year. Or, two or three grains of sodium iodine in a quart of drinking water daily for a month, twice a year.

Japanese Preventive—"We can assume" said Dr. Starr, referred to at the beginning of this article, "that goiter is caused by a lack of iodine in the system. In British Columbia it was found that about 50 per cent of the school children of about 12 had goiter. It was also discovered that none of the Japanese children had it. It was assumed that the Japanese were protected by their diet of seaweeds and other sea foods, which are known to contain iodine. The British Columbian children were given iodine treatments twice a year and upon reaching maturity none had goiter. A survey of fishermen's families on the Atlantic coast showed not a single case of goiter."

Goiter is one of the most common afflictions of women and girls in the Mississippi valley, and in the mountainous regions of the United States and Canada. More than half of the high school students in some of our inland cities have been found to have simple goiter. But if the iodine treatment is faithfully pursued, according to Dr. Starr the time may soon come when it will no longer be necessary to operate for goiter. By replacing meat with sea fish or shellfish in the dietary two or three times each week the amount of iodine ingested can be increased considerably.

This refers to each and every kind of edible sea food. Canned sea food has some iodine value—aside from the ordinary food value which compares favorably with meat.

Oysters, crabs, shrimps, clams, lobster, fresh salmon, fresh cod, fresh tunny, trout, whiting, eel, and numerous other varieties are obtainable in most city markets nowadays. Smoked herring contains considerable iodine and can be found in the most isolated country stores.

HIGH BLOOD PRESSURE

Causes—Among the causes are supposed to be: Constipation, lead poisoning, tobacco poisoning, overeating, heavy proteid diet, worry and emotional disturbances.

Symptoms—Among the symptoms are: Headache, dizziness, disturbance of vision, albumin in the urin, and high pressure as shown by the instruments used to measure pressure. The great Scotch physician, Sir James MacKenzie, holds that we will never lower the heart disease rate and the Bright's disease rate until the average man becomes better informed about high blood pressure and the symptoms of kidney and heart disease. He says that these diseases have progressed a long way before the average man takes heed of the warning signs.

Dr. Rogers of the New York Life Insurance Company is of the same opinion. In a circular issued by the medical examiners of his company, Dr. Rogers gives the following table of blood pressures at different ages, and another list of figures as being the top limits of safety for each age:

Age	Average Pressure	Top limit of normal
20	120	135
30	123	138
40	127	142
50	131	147
60	136	152

This means, for example, that men 50 years of age, with a systolic pressure of 131, is normal; but if his pressure is over 147, he must live right, if he would live long, though he had no Bright's disease or other sign of disease.

It is important to recognize high blood pressure and change one's wrong habits accordingly, at a time when the only proof is that given by the blood pressure apparatus. If the disease has progressed beyond the early and milder stage, the symptoms which begin to be noted are occasional palpitation of the heart, short winded, and slight pain around the heart on exertion, headache, dizziness, loss of mental alertness, and sleeplessness. If a mild degree of high blood pressure is established, the call is for some change in habits. Dr. Rogers says that such persons do best on a rather scanty diet, with very little animal food. They should avoid coffee, alcohol and tobacco. Many hold that the use of salt should be restricted. All possible sources of infection should be eliminated. They should have exercise in moderation out of doors, and their hours of sleep should be long. Constipation must not be allowed to continue. He advocates the use of frequent, abundant enemas, taken in the recumbent posture, rather than allowing constipation to continue. He advocates the use of bran, agar and of mineral oil.

He does not approve of the use of saline laxatives.

If the disease is still more advanced a period of prolonged rest in bed is advised.

Preventives—Avoid constipation, use freely of wheat bran, mineral oil or warm enemas. Emotional strain is harmful.

Diet—The individual whose blood pressure is high may eat practically all vegetables, especially celery, tomatoes, radishes, cucumbers, carrots, cabbage, turnips, olives, potatoes, lettuce; he may have vegetable soups made with milk and vegetable pulp bread of coarse flour twenty-four hours old, gluten bread and bran toast, muffins and rolls; for beverages there are milk and buttermilk, fruit juices and cereal coffees; cereals include flakes, puffs, shreds and other ready-to-eat varieties; eggs may be used with great discretion, watching the effect of the white on the bowels; desserts may seem tame and uninteresting, but may be made delicious; they should include fruited gelatins, fruit ices, tapioca, rice and sage puddings, with fruit sauces and other starchy and fruity dishes.

Cottage cheese makes an excellent body builder and may be served in "roasts," in soups and salads; butter, cream, malted nuts and nut butters help to bring up the fat content of the dietary and incidentally add immeasurably to the attractiveness of the menu.

Fresh berries, especially blackberries, are good, as are also melons, raisins, dates, figs, malted milk, honey and grapes.

Arteriosclerosis—which is a condition of thickening and rigidity, comes on as a natural change in old age, but in some persons the change tends to come on early in life, while certain diseases, of which the chief are gout, syphilis, alcoholism, and lead-poisoning, bring it on in middle life. The results are general debility with wasting of the muscles, failure of appetite, headaches, coldness of the hands and feet, and most important of all, an early failure of mental power due to thickening and blocking of the arteries in the brain, the young or middle-aged man becoming torpid, incapable of clear and connected thought and conversation, and liable to fits of absent-mindedness.

Preventive Treatment—Seek diligently for any predisposing cause. Alcohol in any form should be absolutely interdicted. Attacks of gout and rheumatism should be prevented as far as possible by the restriction of animal foods, tea and coffee. In these cases a vegetable diet is best. If due to heart-disease, kidney-disease, or syphilis, each will require its special line of treatment. The kidneys may be kept active by diuretics. At the same time the skin should be kept active by proper amount of exercise, hot baths, and thorough massage.

HARDENING OF ARTERIES

In an article in the Medical Record extolling the value of distilled water for drinking purposes, Dr. von Wedekind, Medical Inspector United States Navy, points out the fact that the officers of the American Navy are a remarkably healthful class; and he has advanced as an explanation the fact that these officers drink distilled water when on sea duty. The health records of the navy show that the officers are remarkably free from old age or premature old-age troubles.

Blood-pressure tests show such fine figures among the officers that Dr. von Wedekind declares navy officers to be youths at sixty-five years. Blood pressure increases with advancing age, and high blood pressure for one's years indicates abnormal conditions, though not necessarily serious conditions.

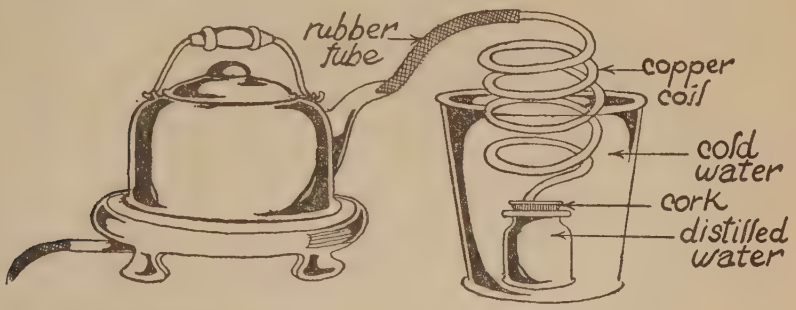
The navy officers give figures rather under the normal. Hardening of the arteries, the old-age disease, is markedly absent in the navy; and in 1913 there was only one death from apoplexy among all the officers.

On board navy vessels distilled water is used almost exclusively, and Dr. von Wedekind's studies have convinced him that this is the explanation.

Dr. von Wedekind says: "Overfeeding is a habit, nothing more. Overdrinking of water may become one—agreeable, constant and productive of such visible results as to be convincing."

It is obvious that distilled water can contain no injurious matter, but it has another more important quality that is shared by no other form of water. This is that it is hungry for soluble ingredients and has its appetite satisfied in coursing through the body, removing excess matter, flushing all parts of the system and washing away everything that is poisonous.

"Form a habit of drinking distilled water. It is pleasant, invigorating, rejuvenating. Make it a point to take three glasses a day in excess of your desires."



To Make Water Still—In any home—in fact in all homes—if the inventive genius in the person of "Dad" or any of the boys be given a tea kettle, a copper coil, a piece of rubber tubing, a bucket of cold water and a glass preserve jar or ordinary water pitcher, and in half an hour you will have a still big enough to furnish water for drinking purposes. But don't put the iceman's ice into the water.

NEURITIS

An inflammation of the nerve-trunk; characterized by pain and paresis of the parts supplied by the affected nerve-trunk. It may result from wounds and injuries, compression of nerves, cold and damp, syphilis, and lead poison. Blisters should be applied along the course of the nerve.

The acute form is characterized by chill, fever, pain, numbness, and tingling in the affected parts. The chronic form is most frequent and is manifested by pains in the diseased parts, tenderness, wasting, abolition of deep reflexes.

Treatment—The patient should be fed on the most nutritious food. Dry heat, moist heat, warm baths, iron and cod-liver oil may be taken with great benefit; electricity and massage with ointment are very useful.

The following prescriptions have been used with good results:

Sodium Salicylate .....1 dram

Make into six powders; dose, one powder every three hours.

Use externally the following remedy: Epsom Salts one ounce, hot water four fluid ounces. Apply hot.

TONSILITIS (Hypertrophy or Tonsilaris)

The common acute tonsilitis of children and young adults is an acute inflammation and swelling of the tonsils with redness of the throat and soft palate around them, and usually an accumulation of yellowish-white cheesy masses of secretion on the surface of the swollen tonsil at the orifices or mouths of the lacunae, or follicles,—crypts or openings.

With ordinary tonsilitis there is fever, dull headache and the familiar aches and pains of acute infections generally. In children there may be little or no complaint of soreness in the throat or pain on swallowing, and hence the nature of the illness may be unrecognized unless the throat is examined.

Children or young adults who have chronically diseased tonsils are liable to acute attacks of this kind at frequent intervals. When three successive attacks have occurred within three years, it is time to have the tonsils removed.

One with tonsilitis should go to bed at once and remain there for the duration of the illness, even though he still feels strong enough to fight it. Disobedience of this rule is accountable for many a serious complication, particularly in the way of valvular lesions of the heart.

Remedies. 1—Gargling with a solution of all the boric acid any amount of boiled water will take up, as hot as possible every hour, will accomplish as much and more than any nostrum.

2. Cold compresses kept on the throat, changed every hour, for a day or two, give more relief where there is much soreness or rawness, than any other application. A cold compress consists of two or three yards of cheesecloth folded into a pad 4 or 6 by 8 or 12 inches, and wet with ice cold or very cold water, applied to the throat and covered with oiled silk or wax paper, or woolen flannel.

3. A well-known throat specialist recommends this prescription: Syrup of iodide of iron, half an ounce. Cod liver oil, three and one-half ounces. Dose: A teaspoonful after meals. Take until very warm weather sets in.

4. Try gargling with common baking soda, one teaspoonful to a glass of warm water. This is such a simple remedy that people should know more of it.

5. Paint the throat with equal parts of glycerine and tincture of iodine. Internally: Five grains of salicylate of soda every three hours for several doses. Be sure to keep the bowels open.

COLDS AND COUGHS

Most persons affect to despise colds; and as long as they can walk about, scorn to be confined by what they call a *common cold*. Hence it is that colds destroy such numbers of mankind. Like an enemy despised, they gather strength from delay, insidiously destroying until at length they become incurable.

Cause—The application of cold to the body giving a check to perspiration, is the general cause of these complaints.

Prevention—Persons liable to coughs, from any little exposure to cold, should wear flannel next to the skin, but particularly over the chest; they should adapt their clothing to the vicissitudes of the weather, and be cautious how they expose themselves too quickly to draughts of external air when heated by exercise or in crowded rooms. The best way to prevent taking cold, is to accustom oneself to sponging off the body every morning with cold water, in which you have thrown a handful of salt. Then rub with a rough towel until re-action sets in. Bathing is a useful preventive, and may often be employed as a curative means.

Remedies—1. An ordinary cold can be readily cured in its incipient stage by *soaking* the feet in as hot mustard-water as can well be borne. Wipe them dry, and retire to bed. At the same time, take three drops of the spirits of camphor, and a tablespoonful of sugar in two tablespoonfuls of hot water.

2. The following has the reputation of being one of the best remedies in use, by those who have employed it, for coughs and colds. It has promptly cured many cases which were supposed to be in the first stage of consumption:

Two tablespoonfuls of flax-seed,
One tablespoonful of dry hoarhound,
One quart of water.

Boil for twenty or twenty-five minutes; strain, and add an ordinary-sized lemon (sliced), one stick of licorice, and an ounce of gum-Arabic. Dose, for a child, one teaspoonful; for an adult, one tablespoonful, and to be taken four or five times a day. This remedy will also cure common hoarseness. If the lemon cannot be procured, use a tablespoonful of good vinegar in its stead.

3. To one pint of water, add two teaspoonfuls of flax-seed; boil moderately for twenty minutes; then add the juice of one-half a lemon; sweeten to the taste, and drink the whole quantity, in divided doses, during the day. This is a favorite remedy with some people for the cure of colds.

4. Express, while warm, the juice from two carefully roasted lemons, and add two or three tablespoonfuls of brown sugar. Take a tablespoonful when the cough is troublesome. You will find this to be as effective as it is pleasant to take.

5. Take equal parts of good vinegar and water; to a teacupful of this mixture, add as much capsicum (cayenne pepper) as will lie on a ten cent piece; sweeten with honey or sugar. A teacupful will allay a cough; a dose taken at bed-time will generally enable the patient to rest well during the night. It should be taken whenever the cough is troublesome.

6. A medical writer says, "The best remedy I ever used for a cough is, equal parts of the tincture of black cohosh, blood-root,

lobelia, and sirup of squills, sweetened with honey, taken every two hours, as required."

7. For coughs and colds of long standing, the Yerba Santa is an excellent remedy. It usually grows in mountainous sections of the country, and especially on the Pacific Coast. It is now commonly kept in drug-stores. A tea is to be made of the leaves, and drunk freely, five or six times a day. The Spanish people regard this as the king of remedies in this disease.

8. **A New and Speedy Cure for Coughs and Colds.**—*It has recently been discovered that kerosene oil is one of the most effectual and speedy cures known for colds and coughs. All soreness of the chest and lungs will likewise disappear at once after its use.* It is employed both internally and externally. See **medical uses of kerosene oil.**

Salt for Coughs—In many cases of troublesome coughs, if the patient will take a "pinch" of salt on retiring at night, it will measurably relieve the difficulty, and procure rest and sleep.

Cold in the Head, or Influenza—Smelling hartshorn frequently during the day will often relieve cold in the head.

Take equal parts of good vinegar and water, and to a teacupful of this mixture add one teaspoonful of best African cayenne; sweeten with honey or sugar. Dose, one tablespoonful, which will allay the cough very speedily. A dose taken at bed-time will generally enable the patient to rest well all night; if, however, the cough becomes troublesome at any time before morning, another spoonful will allay it.

CHOLERA MORBUS.

Cholera morbus is a violent purging and vomiting, attended with gripes, and a constant desire to go to stool. It comes on suddenly, and is most common in autumn. There is hardly any disease that kills more quickly than this, when proper means are not used in due time for removing it.

Causes—It is occasioned by a redundancy and putrid acrimony of the bile, cold, food that easily turns rancid or sour on the stomach, as butter, fat pork, sweetmeats, cucumbers, unripe melons, cherries, or, indeed, fruits of any kind, etc. It is sometimes the effect of strong acrid purges or vomits, or of poisonous substances taken into the stomach. It may likewise proceed from violent passions or affections of the mind, as fear, anger, etc.

Symptoms—It is generally preceded by heart-burn, sour belchings and flatulencies, with pain of the stomach and intestines. To these succeed excessive vomiting and purging of green, yellow, or blackish-colored bile, with a distension of the stomach, and violent griping pains. There is likewise a great thirst, with a very

quick, unequal pulse, and often a fixed, acute pain, and extreme tenderness about the region of the navel. As the disease advances, the pulse often sinks so low as to become quite imperceptible, the extremities grow cold and cramp, and are often covered with a clammy sweat; the urine is obstructed, and there is a palpitation of the heart. Violent hiccoughing, fainting and convulsions, are the signs of approaching death.

Remedies—1. Take ground black pepper, one tablespoonful, and as much table salt; one-half tumblerful of warm water, and as much good vinegar. Dose, one tablespoonful, every few minutes, until the whole is taken. This may be relied on in curing cholera morbus, and, also, genuine cholera, if taken at the commencement. The first dose may be vomited. If this is the case, repeat the dose. The vomiting will seldom return. In the mixture, use cider vinegar, if it can be procured, and stir it well, each time, before using.

2. Pulverized chalk is said to be a cure for this disease, if taken in tablespoonful doses. What is called prepared chalk should be used, if at hand, as it is much preferable to the other. It may be procured at drug-stores.

3. The following old remedy has been very highly praised, for the treatment of cholera morbus:

Take of rhubarb (pulverized)..... 2 scruples.
Pearlash do ..... 2 scruples.
Peppermint (plant)..... ..... 2 scruples.

Add a half pint of boiling water, and sweeten with loaf sugar. Dose, one tablespoonful every half hour, hour, or two hours, according to the urgency of the symptoms. This is one among the most valuable preparations, for not only cholera morbus, but for cholera, cholera infantum, diarrhea and dysentery. It is the celebrated "Neutralizing Mixture."

4. A good and often effectual remedy in cholera morbus, is to make a weak lye, about as strong as common table tea, from hard wood ashes, and take a wine glassful of it every two or three hours. It also is a sure regulator of the bowels.

In the American Practice the following is very highly recommended: "Take of the best Turkey rhubarb, bruised or pulverized, half a drachm, saleratus half a drachm, peppermint plant half a drachm; grind all together in a mortar, and put the powder in a tea-cup, with loaf-sugar enough to sweeten; then add half a pint of boiling water. Dose, one tablespoonful every half hour, or as often as vomiting and purging take place. The effects of this medicine are truly surprising, it being seldom that a patient will vomit up more than one dose of it, if he vomits at all."

The following is highly recommended: Apply a strong mustard plaster to the stomach as long as may be conveniently borne; to stop the vomiting, give a very little drink, allay thirst with small pieces of ice upon the tongue. When the vomiting is stopped give

a tablespoonful of castor oil mixed with twenty drops of spirits of turpentine.

Accessory Means—Hot bricks may be applied to the feet, and they should be bathed in warm lye-water. The patient should take freely of mint tea, slippery elm, and other mucilaginous drinks. Cold water poured upon bread toasted very brown or black, makes a very grateful and medicinal drink. Indian or oatmeal gruel also has a very excellent effect upon the bowels in this disease ; it acts as a soothing or emollient poultice to the stomach and intestines, while at the same time it affords nourishment.

During convalescence the patient should be careful in his diet, using light, digestible, nourishing food. He should keep himself warm, guard against exposures to cold and damp, and avoid all kinds of intemperance. Oatmeal, made into a cake with water, baked, then browned and made into a coffee, is very useful in allaying the distress and vomiting.

CHAFING.

Remedies—1. Simple cerate is one of the best applications used for this troublesome complaint, applied once or twice a day. Every mother, with a young babe, should constantly keep the cerate in the house, for such cases. It is made of white wax and lard, but can be found already prepared at all drug stores.

2. Another good remedy is alum-water, where chafing is caused by walking. The wash may also be used as a preventive. It should be applied at night by means of a soft linen or cotton cloth. A piece of alum, the size of a hazel-nut, dissolved in one-half a teacupful of water, is about the right strength. The pulverized article is more convenient for use.

3. Fleshy people who chafe will find that the placing of a good sized piece of cotton between the parts where the chafing occurs will give perfect relief. This is invaluable information for those who are subject to chafing.

4. To four tablespoonfuls of soft water add ten grains of sub nitrate bismuth, use as a wash, it is harmless and effectual.

AccessoryMeasures—An admirable means for this difficulty, is to wash the parts with cold or tepid water and carefully dry them two or three times a day.

As a preventive, grown people may wear cotton between the parts which rub together.

CORNS.

Remedies—The following are among the best means for removing corns. But it should be borne in mind that a process that will remove them in one individual case, may fail to effect the same purpose in another.

1. Apply spirits of turpentine, several times a day, by means of raw cotton, bound on the corn. This will often be sufficient to remove it in a few days without pain. If this application should fail, pare the corn to the quick, don't cut to bleeding, and apply the turpentine as before.

2. Coal-oil, applied as above, is a very effective remedy in many cases.

3. Bind securely, for several nights in succession, a piece of lemon on the corn. Frequently, on the following morning, the corn may be removed by a penknife. In some cases, several applications of the lemon may be necessary.

4. A very superior remedy for corns, is to spread adhesive plaster on a small piece of soft leather or buckskin, with a circular hole corresponding to the size of the corn. Thus, by removing the pressure and friction, the corn will disappear.

5. Place the feet for half an hour, four or five nights successively, in a strong solution of common soda. The alkali dissolves the cuticle, and the corn often falls out spontaneously.

6. Trim the callus after soaking the corn in hot water; then bind on the corn a small quantity of sal soda; this repeated three times will often effect a cure.

Soft Corns—A perfect cure for soft corns is salicylic acid twenty grains, tincture of Indian hemp twenty drops, colodion one dram; should be applied for four nights in succession. The corn will then come out when the feet are soaked in warm water.

2. A piece of cotton applied fresh every morning gives great relief, or place between the toes a small piece of newspaper folded several thicknesses, change it every morning before putting on the shoe, and wear it through the day. At night, remove this piece and substitute another prepared in the same way, thus wearing the folded paper, night and day, for four or five days, or a week. The paper prevents friction and chafing and also removes direct pressure on the corn; after which, nature effects the cure.

Castile soap, placed between the toes, is said to possess both preventive and curative properties for soft corns.

CHOLERA.

Cholera, a miasmatic disease, propagated through the air, and communicable from one person to another, is usually ushered in by premonitory *painless* diarrhea, and accompanied by sudden prostration, tremors, dizziness, spasms of the bowels and limbs, faintness, profuse serous mucilaginous or bloody discharges, vomiting, burning heat at the stomach, coldness and dampness of the whole surface of the body, cold tongue and breath, unquenchable thirst, feeble, rapid pulse, extreme restlessness, oppressed breathing, *albu*

minous or suppressed urine, blueness of the body, sunken and appalling countenance, peculiar odor from the body, collapse, and finally, unless reaction comes on, death.

Cause—Physicians are not agreed as to the exact character of the cause, but are unanimous in regarding the disease as a most serious one. Instances of death taking place in two, three, four, or more hours, are extremely common. The experience gained during former visitations of cholera teaches us that it seizes the poor in a far greater proportion than the rich, that the most potent conditions favorable to its spread are poverty, overcrowding *filth*, *intemperance* and *impure air* and *water;* and that as we prevent the accumulation of filth, foul air and other causes of general disease, and supply the people with wholesome food and pure water, so we render inoperative the powerful agencies by which this dreaded disease chiefly spreads.

External Applications—At the commencement of the disease, cover the patient up warm, and apply warm flannels or bottles of hot water, or a warm brick, to the feet; but if the patient is in the stage of collapse, and the surface is bathed with a profuse cold perspiration, do not apply external heat, as it will only make him uncomfortable, and increase the exhausting perspiration. In this stage, rub the surface, especially the extremities, freely with the dry hand, or a dry warm piece of flannel, or a coarse towel—the bare hand is the best.

Remedies—1. At the commencement of the attack, if there are great weakness, or chilly sensations, copious sweats, and feeble pulse, disordered vision or dizziness, give a drop of spirits of camphor in a teaspoonful of water, every five or ten minutes, until such symptoms are relieved, at the same time cover the patient in bed, and apply hot, dry flannels to his feet, so as to get him into a gentle perspiration if possible. This course will often check the disease in an hour or two.

Should this not succeed, and the patient continue to become rapidly worse, give the following immediately: "One tablespoonful of ground black pepper and as much table-salt, four tablespoonfuls of good cider vinegar added to a tumblerful of hot water. The whole to be taken during five or ten minutes, in tablespoonful doses. I have used this remedy with better success than any other."—*Dr. Jordan.*

2. The following is Dr. Ure's celebrated remedy for Cholera:

"Tincture of kino.....1 ounce.
Tincture of opium.....4 drachms.
Common starch.....1 ounce.
Tepid water.....3 wine glassfuls.
Mix. Inject slowly into the bowels.

"This injection mixture should be of about the thickness of thin gruel. If it should come away, it should be repeated immediately. If the injection be properly administered, and in sufficient quantity,

it will stop the discharge from the bowels in fifteen minutes, and nothing will pass them for several days. The patient is then safe. A weak mixture of chloroform, spirits of camphor and turpentine, may also be taken by the mouth. If the above injection cannot be quickly obtained, a preparation of starch-water, containing a solution of alum or laudanum, forms a convenient and effective injection. I have seldom failed to cure this disease with this remedy."

To cure nausea at beginning of an attack, wring a cloth out of hot turpentine, place on the bowels, and give carbonic acid water to drink, or champagne if you can get it.

3. Take, of rhubarb (pulverized).....2 scruples.
Saleratus do .....2 scruples.
Peppermint plant do .....2 scruples.
Add boiling water.....½ pint.

Sweeten with loaf sugar. Dose, one tablespoonful, every 30 or 60 minutes, according to the urgency of the symptoms. Its operation and action appear to be specific or almost infallible, not only for cholera, but also cholera-morbus and cholera-infantum. When the reactionary fever comes on, and the temperature begins to rise nourishment must be given with the greatest care, the rule being to postpone a solid diet as long as possible, consistent with the maintenance of strength.

Tincture of capsicum.....1 ounce.
Tincture of camphor.....1 ounce.
Tincture of opium.....1 ounce.
Spirits of ether.....½ ounce.
Mix. Dose, twenty drops every fifteen minutes.

This is the Dr. Sappington remedy of New Orleans which is so highly recommended.

General Directions—*Absolute rest* in the recumbent posture, from the very commencement of the diarrhea. A *hopeful and cheerful state of mind* should be fostered, a presentiment of death being unfavorable.

The sick-room should be warm but well ventilated. The return to ordinary diet should be slow. Evacuations, bedding, and clothing should be disinfected. See Section on "Nursing."

Preventive Treatment—When cholera is epidemic, *camphor* should be taken once or twice a day, in doses of two or three drops on sugar. *The simple diarrhea* which often precedes malignant cholera should be promptly arrested.

Sanitary and Hygienic Measures—The following excellent advice has been given, and should be adopted at the first indication of cholera:

The house should be well aired, especially the sleeping apartments, all of which should be kept dry and clean.

All *effluvia* arising from decayed animal or vegetable substances ought to be got rid of; consequently, *cesspools and dust-holes should be cleaned out, and water-closets and drains made perfect*

Disinfectants should be liberally used, viz. chloride of lime, or a solution of copperas sprinkled around freely.

All exposure to cold and wet should be avoided, and *on no account should any one sit in damp clothes, particularly in damp shoes and stockings. Care should be taken to avoid chills or checking perspiration.* Clothing must be sufficient to keep the body in a comfortable and even temperature.

Habits of personal cleanliness and regular exercise in the open air should be cultivated; also regularity in the periods of repose and refreshment; anxiety of mind and late hours should be avoided. *Be temperate in all things.*

The diet should be wholesome, and adapted to each individual habit. *Every one should, however, be more than ordinarily careful to abstain from any article of food (whether animal or vegetable) which may have disordered his digestion upon former occasions, no matter how nutritious and digestible to the generality, and to avoid all manner of excess in eating and drinking.*

Raw vegetables, *sour* and *unripe or wilted fruits*, cucumbers, salads, pickles or any other vegetables should not be allowed.

Wholesome varieties of ripe fruits, whether in their natural or cooked state, and vegetables plainly cooked, may be taken in moderation, by those with whom they agree.

During the active stage of the disease, nothing but the most simple drinks, such as rice-water, arrow-root, corn-starch, or toast-water, should be allowed, and even of such liquids *only small quantities at a time.*

When the vomiting and purging cease, the above drinks may be made thicker and more nourishing, and when the appetite seems to demand it, thin puddings of arrow-root, rice, or corn-starch may be allowed, and after a day or two more toast, crackers and meat. Food in substance, like toast, rice, or meat, should never be given more than three times a day to a patient while recovering from this or any other disease, as the stomach needs seasons of rest.

Preventive and Curative—From hard wood-ashes, make a weak lye, about as strong as common tea. Take half a wineglassful after each meal. This has been used with complete success as a preventive for many years when the cholera has been prevalent, and also successfully used in checking it in the first stages of the disease. The dose, in such cases, is to be repeated often. It is also a sure regulator of the bowels.

CHILBLAIN, OR FROST-BITE.

Chilblains are painful, inflammatory swellings, of a deep purple or leaden color, to which the fingers, toes, heels and other extreme parts of the body are subject on being exposed to a severe degree of cold. The pain is not constant, but rather pungent and shooting at

particular times, and an insupportable itching attends. In some instances the skin remains entire; but in others it breaks and discharges a thin fluid. When the degree of cold has been very great, or the application long continued, the parts affected are apt to mortify and slough off, leaving a foul, ill-conditioned ulcer behind. Children and old people are more liable to be troubled with chilblains than persons of middle age; and such as are of a scrofulous habit are very apt to suffer severely from them.

The best mode of preventing these affections is to avoid any exposure to wet or cold; therefore, those who are subject to them should be cautious, on the approach of winter, to keep warmly clothed and keep the feet dry.

Remedies—1. Apply, morning and evening, a strong solution of alum-water, as hot as it can be borne. It will effectually cure chilblains.

2. They may also be cured by bathing and rubbing the parts, once or twice a day, for twenty or thirty minutes, in lye of wood-ashes. Use as hot as can be borne.

3. Take lime and make a white-wash mixture—a foot-tubful of it—and as warm as you can conveniently bear it. When the chilblains begin their nightly itching, plunge the feet into it. The relief will be instantaneous. At the end of thirty minutes take them out. They will be free from pain. Rub them briskly and there will come off rolls of dead skin. Anoint the feet with mutton-tallow; then put on a pair of cotton socks, and go to bed. Repeat the application two or three times, and you need not suffer from frozen feet longer than it will take you to get the white-wash ready on each recurrence of frost-bite.

4. Another means of curing chilblains, if they are not in the advanced stages, is the following: Each night, wash the feet in cold water (soft water is much the best if it can be had). After wiping dry, warm them before the fire, and at the same time, rub them well with the hands.

In cases where chilblains ulcerate and slough, constitutional treatment will be demanded; and for this purpose, give a sirup, made of black cohosh, one ounce, in one pint of water. Boil to one-half pint, strain, and, while hot, add one-fourth pound of loaf sugar. When cool, add enough spirits—say two tablespoonfuls of whisky—to keep the mixture from souring. Dose, one tablespoonful, three times daily

CHAPPED HANDS, LIPS AND FACE.

Remedies—1. These may often be healed by the frequent application of *honey-water*, equal parts of honey and vaseline, and protecting them from the influence of cold air.

2. An excellent remedy for chapped hands is a mixture of

sub-nitrate of bismuth, two drachms, with double the quantity of fresh lard. This applied to the parts will effect a rapid cure.

3. Camphor-ice is very useful and effective for the same purpose. This is prepared as follows: Melt slowly an ounce of camphor and one of fresh mutton-tallow; stir well. This may be applied two or three times a day. This is the same article found at the drug-stores and sold at such expensive rates.

4. Put six or seven drops of glycerine into the water before washing the hands, or drop three or four drops in the palm of the hand after washing off the soap and dirt, rub all over the hands and wrists, then dry them thoroughly, and a cure will soon be effected. Tinct. of benzoin, a few drops to some pure glycerine, is the best application for cracked lips.

5. Wash the hands with warm water, wipe them dry, then grease them with mutton-tallow, vaseline, or cosmoline. Do this before going to bed, and put on a pair of gloves, to avoid greasing the bed-clothes. Practice this for a few days. It will cure the hands and make them soft, white and smooth.

6. Washing them in vinegar is also excellent for this purpose.

CATALEPTIC FITS.

Symptoms—This disease is characterized by a greater or less loss of consciousness, with rigidity, sometimes of all the muscles of the body, and sometimes of only a part. The limbs are not usually so stiff that they cannot be bent, but the peculiarity is that they retain the position in which they are placed, however awkward it may be. The paroxysm may last but a few minutes, or it may continue for hours or days. This disease resembles hysterics in many respects, and arises from similar causes.

Remedies—Catalepsy requires no treatment during the paroxysm, unless there are certain symptoms demanding it, such as flow of blood to the head, palpitation of the heart and feeble pulse. Generally, it is better to lay the patient in a horizontal position, loosen his necktie, and let him alone until the fit passes off naturally.

1. The juice of the plantain-leaf is reputed to be a cure for catalepsy. Dose, one teaspoonful, twice a day.

2. The shower-bath, exercise in the open air, and a nutritious, easily-digested diet should be directed. Sea-bathing, if practicable, is of great importance.

3. If a person fall in a fit, let him remain on the ground, provided his face be pale; for, should it be fainting, or temporary suspension of the heart's action, you may cause death by raising him upright; but if the face be red, or dark-colored, raise him to a sitting posture, and sprinkle cold water on his head immediately

CHICKEN-POX.

The eruption is often the first symptom noticed, in other cases a fever, with some headache, precedes the eruption for from a few hours to one or at most two days, and goes off when the eruption appears. The eruptions may be numerous or but few. Small, irregular-shaped, transparent vesicles make their appearance on a slightly red surface, and rapidly enlarge to an eighth of an inch in diameter, sometimes even larger. There is more or less itching, causing the child to scratch. At the end of three or four days, they begin to dry up, forming small brown crusts, which fall off at the end of eight or ten days. Scratching the vesicles or blisters sometimes causes the formation of large scabs which may leave pits. So far preventives are unknown, after exposure to the contagion, therefore, all we can do is use caution, prevent colds, keep the bowels regular and be prudent in diet.

Remedies—It is not considered that any danger ever attends this complaint; but should the fever run high, let the patient take, of the tincture of aconite, two drops, in a tumblerful of water, well stirred together. Of this use two teaspoonfuls every two or three hours. If he has much thirst, let him drink freely of cold water and abstain from the use of all kinds of hot teas and slops that patients with chicken-pox or measles usually have poured down their throats. Use a little "cold cream" on face and neck; see *cold cream* in recipes. Keep in doors and out of air draughts.

Accessory Treatment—Attention to diet as in simple fever, especially if the digestive organs are impaired. Milk-diet is best. Exposure to cold should be avoided, especially in cold weather, but the room should be kept well ventilated. The child should be prevented from scratching the skin when the scales are formed.

CANCER (Carcinoma).

A cancer is an ulcer of the very worst kind, with an uneven surface and ragged and painful edges, which spreads in a very rapid manner, discharges a thin acrimonious matter that excoriates the neighboring integuments and usually has a very fetid smell, and which is generally preceded by a hard or scirrhus swelling of the part, if glandular. The disease is most commonly confined to glands, and particularly the breasts; now and then to be met with in the womb, the face, and other parts.

The cancerous sore is extremely irregular; on its surface are seen various prominences and excavations, from one or more of which a hemorrhage is frequently observed to proceed. It is attended with a peculiarly burning and lancinating pain, which is generally intermittent. The edges are thick, indurated, and often exquisitely painful, and acute pains are very frequently felt darting

through the tumor. The odor of the discharge is frequently so intolerably offensive that it is difficult to inhale it long.

There is a species of cancer called *noli me tangere*, which means, *touch me not.* It appears on the surface, generally the face, and is very small and slow in its progress, and rough, scaly, and itchy. It will continue for a great many years without much injury, or perhaps danger. Cancers of the female breast proceed to a more speedy termination, particularly when they have submitted to empirical treatment by the knife; there are few exceptions.

Remedies—1. The juice of the full-grown leaves of the poke-root, allowed to thicken by evaporation in the sun, and then made into a thick plaster, with gunpowder, and applied once a day, has effectually cured cancers.

2. Sheep-sorrel has been a celebrated remedy for this affection. It is used in the form of a plaster made by expressing the juice of the green herb, evaporating it in the sun, to the consistency of a salve, and applying it twice a day. This juice should be placed in a *pewter plate* to evaporate, as oxalic acid combines with the lead in the pewter, which is necessary in forming the compound.

3. Mash a quantity of cranberries in a mortar, then spread on a cloth and apply to the cancer, and change the poultice three times a day. In two or three days it may become sore, drawing out pustules that fill like small-pox. This process must be renewed until the whole is drawn away and the cancer becomes soft and decreases in size and finally disappears.

Dr. Elisha Smith, formerly president of the New York Association of Botanic Physicians, says:

"If the cancer has become open and ulceration commenced, apply the flesh of fresh-killed chickens. This will extract the fever and acrimonious poison astonishingly, and become in the course of two or three hours perfectly rotten and corrupted with it. They should then be changed for a fresh application. This method should be continued till the poison and life of the cancer are extracted, when the whole substance of the tumor will become a dead mass and may be taken out with ease and without pain. If it is not convenient to obtain chickens' flesh to apply continually, it may be alternated with poultices of charcoal and yeast, which also extract putridity. The flesh of any animal is good, but I consider chickens preferable."

The following recipe is by the renowned Dr. Gilbert, a name justly and widely celebrated in the cure of this species of affection: Take, of strong apple vinegar, one-half gallon; verdigris, one-half pound; honey, one pint; place in a copper-kettle with four or five bars of pewter-solder; boil very slowly, or simmer over a moderate fire, until reduced to one-half the quantity. Keep in a well-closed glass-vessel, as exposure to the air decomposes it. First wash the

ulcer with castile-soapsuds, and if any proud flesh or unhealthy granulation appears, apply vegetable caustic, or any other caustic best suited to the case. Then moisten lint with the above, and fill the ulcer with it. Over this, place a piece of folded muslin, large enough to cover all the inflamed parts, and bandage. Keep the whole constantly moistened with the preparation, never allowing it to become dry. The ulcer may be dressed as required, from one to three times a day.

Few things contribute more to the healing of foul, sordid ulcers of any kind than keeping them thoroughly clean. This ought never to be neglected. The best application for this purpose seems to be the carrot-poultice. The root of the common carrot may be grated, and moistened with as much water as will bring it to the consistence of a poultice. This must be applied to the sore, and renewed twice a day. It generally cleans the sore, and eases the pain, and takes away the disagreeable smell, which are objects of no small importance in such a dreadful disorder.

Red clover blossoms of late have obtained quite a celebrity in removing the humor from the blood. Gather and dry the blossom and make a cupful from a small handful of flowers, drink three or four cupfuls each day. The extract can be bought at drug stores. This is an easier production, and equally as efficacious as Dr. Thomson's quoted below.

Wort, or an infusion of malt, has been recommended not only as a proper drink, but as a powerful medicine, in the successful treatment in this disease. It must be frequently made fresh, and the patient may take it at pleasure. Two or three pints of it may be drunk every day for a considerable time. No benefit can be expected from any medicine in this disease unless it be persisted in for a long time.

Dr. S. Thomson's Cancer Plaster—Take of the heads of red clover sufficient to fill a two-gallon brass-kettle, and boil them in soft water for one hour; then remove these from the kettle, pressing the liquor out from them, and fill the kettle again with fresh heads, which must be boiled in like manner in the same liquor, adding as much more water as may be necessary. After boiling these about an hour, the liquor must be strained off and the clover-heads pressed as before to get it all out. Then return it into the kettle and boil or simmer down to the consistence of thick tar. Very great care must be taken in boiling it down to prevent its burning; as by burning, not only the burnt part is destroyed, but the remainder is in some measure deprived of its medical properties.

When used it should be spread upon a piece of bladder, suet-skin, thin cloth or strong paper.

If the cancer is discharging, change and renew the plaster at least twice a day.

This has proved successful in curing many cancers.

CANKER OF THE MOUTH (Cancrum Oris).

Symptoms—This disease is characterized by the membrane covering the sides of the tongue and inside of the cheeks becoming red and inflamed, and afterwards covered with large ulcers. The tongue becomes swollen; there is a profuse secretion of saliva, or spittle, the breath is offensive, and swallowing difficult.

Remedies—1. Use the following wash: Take one gill of yeast, and two of milk, and sweeten with molasses. Use three times a day, and at the same time take a wineglassful of it, internally, twice a day. This will be found very effective.

2. In severe cases, the following is a very good treatment: To a teacupful of sage-tea, sweetened with honey or loaf sugar, add fifteen drops of the tincture of iron. Mix well together, and, with a little soft lint, touch the ulcerated parts three or four times a day.

3. The best internal remedy is salicylate of soda sixty grains, water four ounces, a teaspoonful four or five times a day.

Strong beef-tea, raw eggs, beaten together with milk, is very beneficial.

When, in young infants, it is desired to wash the mouth with the swab, great care and caution should be employed in its use. A little soft lint on the end of a quill, and wet with the solution, should be lightly applied to the ulcers.

4. The golden seal (*Hydrastis Canadensis*) is a very popular remedy in the treatment. A strong tea of it is to be used as a gargle or wash, three or four times a day.

5. When the ulcers are on the outside of the lips or cheek, apply a poultice of charcoal and yeast; or use carbolic acid and water, in the proportion of one teaspoonful to half a pint of water. In mild cases, apply three times a day; in severe cases, use every three or four hours.

Accessory Treatment—First of all, the child requires fresh air and sunlight, and next suitable food, milk thickened with coarse flour, a thin pudding made of the same, beef-tea, mashed potatoes, and, subsequently, beef or mutton.

HABITUAL COLD FEET.

Some people are often troubled with cold feet, caused by dampness from perspiration. In such cases, do not wear cork insoles, as some do, for they become saturated, and hold the moisture.

Remedies—1. The best plan is to cut a piece of thick cloth, the size of the foot, and baste upon it half an inch in thickness of curled hair. Wear it inside of the stocking or sock. It should be removed at night, and placed by the fire to air and dry until morning. The hair creates a warmth, and at the same time

conducts the dampness to the cloth. Cold and damp feet should be avoided, as they are a prolific source of disease.

2. A tincture of the berries of prickly ash, will often relieve this difficulty, taken in doses of from one to two teaspoonfuls, two or three times a day.

3. Another good plan is to wear two pairs of socks, of different material. One of woolen and the other of cotton or silk, and alternate every day.

4. The following is recommended as a means of preventing cold feet: Get two copper and zinc plates to correspond to the size of the shoe or boot you wear. The end of one is to be lapped upon, or interlinked with the other, about half or three-quarters of an inch. This lapping is to be in the hollow of the foot. Zinc and copper, like many other metals, when thus intimately associated with each other, aided by the moisture of the foot, generate electric fluid, which will re-establish the equilibrium of heat throughout the body. These plates may be purchased at surgical and optical instrument stores.

5. Stand square on the feet and then tip forward on the toes and back, striking the heels; repeat for five or ten minutes two or three times a day. If continued daily, as directed, for a week, it will afford relief.

6. Another good means is to take two pails, one filled with hot water and one with cold; put the feet in hot water and then immediately plunge them into the cold, and vice versa, three or four times. After which rub well.

7. Brandy and mustard seed is also another good remedy for cold feet, if used in bathing them, just before retiring.

Some people's feet are kept more comfortably warm with woolen socks, others with cotton, others again with two thin pairs; as that which is best adapted to one is not always to another.

Accessory Measures—If you are subject to cold feet, immerse them morning and evening in hot water, rub with a rough towel, and run about your room till they burn. In one month, usually, you will be entirely relieved. But in some cases nothing external or internal can cure cold feet, if the stomach does not promptly digest its food. A cheerful spirit, simple food, with appropriate out-door exercise constitute the true principle of medication for cold feet in most cases.

When the feet are cold, go direct, if possible, to the fire. The quickest and best way to warm them is to draw off the stockings and hold the feet to the fire, rubbing the soles and between the toes until perfectly dry. This should be done by all men who are out of doors most of the day, first washing them, then wearing another pair of socks for the remainder of the evening, thoroughly airing those removed for the next day's wear.

It is a bad practice and most hurtful to sit around the fire for a whole evening in the same boots and shoes worn during the day;

besides it makes disagreeable smelling feet, because the perspiration condenses, is mixed with the dirt that accumulates while walking, and there are decomposition and a noisome smell.

Cause of Fevers—Every one knows that fevers are often occasioned by the application of cold to the feet, which drives the blood from the extremities and throws it upon some organ, or retains such agents as ought to be eliminated, in consequence of which fever takes place. Now, it must be evident that there is no better method of preventing these consequences than by recalling the blood to the feet and surface, thereby preventing and removing fever, by bathing the feet in warm water, to which a small quantity of lye has been added.

I am persuaded that bathing the feet immediately after exposure to wet or cold, in nine cases out of ten, aided by drinking freely of warm catnip or other tea, and then covering warm in bed, will prevent an attack of fever.

CONSTIPATION, OR COSTIVENESS.

Constipation and Purgatives—While we admit that constipation is not desirable, and may almost invariably be avoided by such measures as are pointed out further on, yet a tendency thereto is not so prejudicial as many persons suppose; indeed, persons thus predisposed are generally long-lived, unless they commit suicide by purgative medicines; while those who are subject to frequent attacks of diarrhea are soon debilitated. A daily action of the bowels is no doubt desirable in most cases, but by no means invariably so. An evacuation may take place daily, or every second day, or even every third day, in persons who are equally healthy, no invariable rule applying to all persons. The most erroneous and dangerous idea on this subject is that extremely popular one—that mild purgatives contribute to health, not only during sickness, but also occasionally in health, inasmuch as impurities are thereby expelled from the body. The fallacy of this may be easily demonstrated: Let purgatives be taken for a week, and however good may have been the health previously, at the termination of this period very much "impurity" will be discharged, especially after taking any drastic cathartic.

Purgation produced by drugs is an unnatural condition and although temporary relief often follows the use of aperients, they tend to disorganize the parts on which their force is chiefly expended. The intestinal canal is not a smooth, hard tube, through which can be forced whatever it contains without injury; it is part of a living organism, and needs no force to propel its contents on their way; nor can such force be applied with impunity. Not only does the frequent use of purgatives over-stimulate the liver and pancreas, but also and especially the numerous secretory glands which

cover the extensive surface of the intestinal canal, forcing them to pour out their contents in such excessive quantities as permanently to weaken and impair their functions, and so produce a state of general debility. The normal action of the stomach and intestinal canal being thus suspended, nausea, vomiting, griping, and even fainting are produced. The brain and vital energies are disturbed, occasioning lowness of spirits with melancholy, alternating with mental excitement and peculiar irritability of temper.

An important end will be gained when persons can be led to regard constipation as a mere result of other causes—a want of balance in the general system; and when general and remedial measures shall be directed to the correcting of this condition as the adequate means of curing constipation.

Constipation in Old Age—Daily evacuation, which is the rule in youth and middle life, is often an excess in advanced life, when three or four times a week are sufficient. It is desirable that this physiological fact should be known, as old persons often trouble themselves needlessly on this point. If constipation give rise to any inconvenience in the aged, it is best met by articles of diet.

Symptoms—Headache; feverishness; pressure or distension in the stomach and bowels; urging and repeated but fruitless efforts to evacuate the contents of the bowels, or complete torpor without desire; pulsation or pain in the abdomen; piles and varicose veins; uneasy breathing, disturbed sleep; depression of mind, etc. If constipation be persistent, it may be attended with vomiting.

Causes—In most instances, constipation depends upon some faulty habit in the patient, the regulation of which will probably in every case suffice to remove this condition. The following are a few of the faults in question: Sedentary habits; smoking tobacco; drinking too much beer, port wine, or tea; dissipation; the exclusive use of superfine flour; taking food too dry and too destitute of succulent vegetables; neglect in attending to the calls of nature to relieve the bowels; loss of tone in the mucous lining of the bowels from the use of purgatives. Sometimes constipation is the result of disease in other parts—disease of the liver, brain or spinal cord, or their membranes. Here, again, the remedy must be directed to the cure of the disease, if that be possible, rather than to the simple removal of one of the symptoms to which it gives rise.

Remedies—1. The Chittim bark or Cascara Sagrada has become a very popular remedy for the cure of constipation, with both the profession and with the people. Steep one ounce of the bark in a half-pint of water for twenty minutes. Dose, one teaspoonful three times a day. The fluid extract of the bark can be obtained in all drug stores. Dose, ten to fifteen drops. If it should act as a cathartic reduce the dose, or take it less frequently.

Dr. Ralston, of Washington, the celebrated hygienic doctor, says: "Nature has provided in every house in the land a positive cure for constivation. I have never yet met with a case I could not cure.

The remedy is simply water. I used distilled water, but doubtless any good, pure water, not mineral or hard water, will answer. A half hour before breakfast drink (sip) at least one pint to one and one half pints of water as hot as can be borne, and before retiring at night drink at least four or five teacupfuls. Eat as little starchy food as possible, no fresh white bread at all, and very little other bread excepting that made of entire wheat flour or graham, and eat as much raw fruit as possible. This will cure constipation if taken as directed.

In habitual constipation go to stool every morning at a regular hour, whether you succeed or not, and every other day take as an injection three quarts of warm water.

These remedies have been known, not only to relieve, but also to permanently cure many obstinate cases of constipation, when used in connection with proper dietetic habits."

3. A fresh egg, beat in a gill of water and drunk on rising in the morning, and at each meal, for a week or ten days, has cured obstinate cases. It might be increased to two or three at a time, as the stomach will bear.

4. Add one-half teaspoonful of flax-seed to two or three tablespoonfuls of boiling water; take as warm as possible. Repeat every morning before breakfast.

This is a Japanese remedy, and one that they pronounce the best every used in their country for this disease. In can be obtained in all drug stores.

CURE FOR COSTIVENESS WITHOUT MEDICINE.

Never postpone, for either pleasure, business or convenience, the call of nature, but obey her first and faintest intimation. This neglect is what produces, originally, the costive habit, and brings on the long train of diseases and ailments which follow in its course. The bowels should be evacuated every day, without fail, except in some extraordinary cases of illness. The best time for this is probably after supper, at night; for the reasons, first, that this is more likely than any other hour of the day to afford the necessary quiet and leisure; and, secondly, because any tendency to piles, which may be produced by straining at stool may then be followed and overcome by a night of rest, instead of being aggravated by a day of labor. We would, therefore, advise every one to select this hour, in preference to any other of the twenty-four, for this purpose. But, whatever hour you select, the all-important point is, that it should be fixed and changeless, like "the laws of the Medes and Persians." No ordinary exigency of domestic, business or society claims should keep you from this appointment. It is a solemn and holy trust with Nature, which you break at your peril; for Nature is like a coy mistress, and cannot easily be induced to meet you again after you

have once disappointed her. A very simple way of obtaining action of the bowels, is to knead them with knuckles and the palm of the hand, for five minutes every morning.

It may be well for those who lead a sedentary life, and who have been for a long time troubled with costiveness, to eat freely of Graham-bread and apple-sauce, especially at breakfast. Meat, hot biscuits and coffee should be taken sparingly at any meal, and never for supper.

A tablespoonful of corn-meal, stirred into a glass of hot water and taken before breakfast, for several consecutive mornings, will aid in the cure of obstinate cases, and help them to the re-establishment of natural habits. Nearly all fresh and ripe fruits are also favorable, and should be eaten in the morning. Above all, let it be remembered, that the chief difficulty is in making up one's own mind, firmly and decidedly, to pursue the course directed. This done, no one will long be troubled with the curse of costiveness.

Do not fail to read the article on "Costiveness," in another part of this book.

Diet and Accessory Treatment—*The most important measure, without which remedies will be of little use, is to make an attempt to have a passage at a regular hour every day, or every other day, and never neglect this duty.*

Meals should be taken with regularity, animal food eaten sparingly, but vegetables and ripe fruits freely. Coarse oatmeal porridge, with molasses, may be taken for breakfast, and brown bread should always be preferred to white. If brown bread be not eaten exclusively, a little should be taken with nearly every meal; its effects will thus be more uniformly exerted through the alimentary canal than if only taken occasionally. Water is an extremely valuable adjunct, both as a beverage and for external use. For tea and coffee, cocoa from the nibs may be substituted with great advantage. Spirituous liquors, highly-seasoned food, and late suppers should be strictly avoided.

Walking exercise in the country, with the mind unencumbered, is useful, particularly in the morning; but it should not be carried to the point of inducing fatigue or much perspiration. Friction over the abdomen, by towels, horse-hair gloves, or the hands, is frequently of great utility: it tends to stimulate peristaltic action of the bowels, and to dispel accumulations of gas.

Injections—In obstinate, protracted constipation, attended with feverishness and hardness, or fulness of the bowels, and when it is ascertained that the lower bowel is obstructed with fecal matter, too large or too hard for discharge, and the means before suggested have not proved at once effectual, the enema, or injection may be used as an almost certain means of obtaining temporary relief. The injection should consist of a pint or more of tepid water, which should be carefully and slowly injected up the rectum by means of a syringe. Repeat if necessary. Unirritating in its operation, and

acting directly on the seat of obstruction, an injection is far preferable to deranging the whole alimentary tract with strong drugs which excite violent action only to reduce it to a state of greater debility and torpor than existed before.

An effective injection especially for children is, to take a piece of castile-soap, and, after shaving it with a knife, into a proper shape and size, having it pointed at one end, introduce it into the rectum and retain it there for a minute or two. The result is generally a speedy action of the bowels.

Similar prompt results will be obtained by using a piece of writing paper. Take a square piece and roll it from one of the corners, so that one extremity shall be smaller than the other, and pointed. Use this the same as the soap. It is a neat, safe and effective means to move the bowels of infants, and always at hand.

Costiveness in children generally disappears as soon as the child is weaned, and he begins to run around, unless the bowels have been weakened by cathartics or laxatives.

For infants, a piece of phosphate of soda as large as a bean dissolved in milk and given three times a day is a specific.

CATARRH, OR INFLUENZA.

This disease sometimes prevails epidemically, and to this form it is that medical writers apply the term influenza; whilst cases that occur incidentally, are called catarrh, or cold. When it prevails epidemically, it undoubtedly depends upon the state of the atmosphere; though in some cases it has been attributed to contagion.

In general, it comes on with a dull pain or sense of weight in the forehead, sometimes preceded by a slight chill, a redness of the eyes, and a fullness and heat in the nostrils, which is soon followed by a thin acrid fluid from the nose, together with a soreness in the wind-pipe, hoarseness, frequent sneezing, dry cough, loss of appetite, and general lassitude; towards evening the pulse becomes considerably quickened, and a slight fever arises.

In the progress of the disorder, the cough is attended by an expectoration of mucus, which at first is thin, white, and thrown off with some difficulty: but becoming gradually thicker and of a yellow color, it is at length brought up with more ease and less coughing.

Influenza is seldom attended with fatal consequences, excepting with very young children, persons who are old and feeble, or those who are of a consumptive habit; but usually terminates in a few days, if not too much neglected, either by an increased expectoration or a spontaneous sweat. It, however, in some instances, lays the foundation for pulmonary consumption, or produces a tendency

to asthma, or dropsy of the chest. Occasionally it becomes habitual, and is accompanied with difficulty of breathing, especially in winter.

The description which we have given only applies to the worst forms of this disease, from which it may be traced, by imperceptible gradations, down to cases which do not interfere with a person's ordinary business.

Remedies 1.—*Salt and warm milk when properly combined and rightly used, is one of the few remedies that will cure catarrh. We have been more successful with it than with any other known remedy.*

DR. BARRETT, OF BALTIMORE, MD., SAY: "MY BROTHER, AFTER BEING TREATED FOR CATARRH BY EMINENT PHYSICIANS IN BOTH EUROPE AND THE UNITED STATES, AND AFTER HAVING ABANDONED ALL HOPE OF RECOVERY, WAS CURED WITH THIS REMEDY IN SIX WEEKS." (See medical uses of salt, page 619, for its use.)

2. *Dr. Beach, author of the Home Physician, writes: "An old lady once gave me a simple remedy for catarrh, which I have ever since used, and have found it the most successful remedy in all my practice. It cures when everything else fails." It is simply borax,* and is used as follows: Dissolve a tablespoonful of borax in a tumbler half full of water. Pour a little into the hollow of the hand and snuff it up into the nostrils. Repeat the dose five or six times a day until cured.

It may be poured first into a teaspoon and from that into the nostrils.

3. PROF. BUNDY'S NOTED CATARRH CURE. The following new remedy has been recently introduced to the medical profession, and is regarded as excelling anything yet published for catarrh.

Obtain at the drug store 2 gills of fluid extract of Yerba Reuma and add to this an equal quantity of water. Pour a teaspoonful of the liquid into the hand and snuff it into one of the nostrils while pressing on the other with the finger; after which repeat the same with the second teaspoonful into the other nostril. Use 4 or 5 times daily. If there is any discharge from the nostrils first snuff some warm water to cleanse the parts, and should there be any offensive smell existing add 30 drops of carbolic acid or one-half teaspoonful to the above preparation before using.

3a. The following remedy comes to us from the Pacific coast as one of the best known remedies in that country for the cure of this disease, where many of the worst cases have been cured with it.

½ Teaspoonful Bicarbonate of Soda,
½ " Borax,
1 ounce of Glycerine,
10 drops of Carbolic Acid,
6 ounces of Rainwater.

Use in water atomizer.

4. **The Ralston Preventive.** A NEW DISCOVERY FOR POSITIVELY PREVENTING CATARRH IS GIVEN ON PAGE 714. IT IS EXTREMELY SIMPLE AND EASILY APPLIED. EVERYONE SHOULD KNOW IT.

5. A remedy that has been used recently, in Paris, with suc-

cess, in this disease, is spirits of ammonia. It is applied by inhaling it through the nose.

Dip a camel-hair brush in glycerine and press it up the nostril as far as possible. This promotes the natural secretion of mucus and is healing.

DROPSY.

Dropsy is a watery accumulation in the areolar tissue, more or less general throughout the body.

It is of two distinct varieties; for, besides its occurrence in the meshes of the loose tissue beneath the skin, it may take place as a local dropsy in any of the natural cavities or sacs of the body, and is named according to the parts involved. If the accumulation occurs in the ventricles of the brain, it is called hydrocephalus; if in the membrane that lines the surface of the lungs, hydrothorax; if in the membrane of the heart, hydropericardium; if in the intestine, ascites.

According to Murchison, there are three forms of dropsy—partial dropsy, dropsy at first partial but which afterwards becomes general, and dropsy which is general from the first. 1. Partial dropsy is always due to excessive venous repletion; and this over-distention of the small veins is the result of some mechanical impediment to the venous circulation. Dropsy due to obstructed portal circulation may be recognized by the following clinical characters. It *begins* in the abdomen; difficult breathing *follows*, but does not precede the ascites; there is a tendency to vomiting, diarrhea and piles. Further, the spleen becomes enlarged, and there are varicose veins on the right side of the abdomen. 2. Dropsy at first partial but afterwards becoming general, commences in the feet and extends upwards; and this is also due to excessive venous repletion, from obstructed venous circulation. 3. Dropsy invading all parts of the body at once is due to diminished exhalation in one part, leading to compensatory exhalation in another. This is almost invariably renal, and albumen is present in the urine. Here dropsy results from diminished exhalation of water from the kidneys, and is consequently chiefly met with in the form of kidney-disease in which the tubes are blocked up by diseased or inflammatory products.

Character of the Swellings—Dropsical swellings are soft, inelastic, diffused, and leave for some time the indentation made by the pressure of a finger. In chronic cases, and when the swelling is very great, the skin becomes smooth, glassy, and of a dull-red or purple color; and where the skin is less elastic, it becomes livid or blackish, and troublesome, even gangrenous; or sloughs may form.

The most common attack of this disease is the dropsy of the abdomen, called ascites, which is easily distinguished by a sense of weight or swelling of the abdomen, with a gradual accumulation of

water; the weight being felt on the side on which the patient generally lies.

Dropsy is usually the effect of other diseases. It sometimes arises from pressure upon the blood-vessels, as in pregnancy and tumors. It is especially produced by intemperance; for drunkenness more frequently produces this disease than any other cause.

In treating dropsy, of whatever organ, it is necessary to use such remedies as will act on the kidneys and skin, and excite them to increased activity. The result of this activity is to diminish the fluids which have collected in one or another part of the body and remain there unabsorbed, and cause them to be taken up by the kidneys, or thrown off by the skin, and thus carried out of the system through the natural outlets. Any remedy that accomplishes this object effectually cures dropsy occurring in any part of the body; so that, in general, dropsy of the bowels, chest, etc., may be treated by similar remedies, with the reasonable expectation of securing similar beneficial results.

Remedies—1. The common elder, which grows in all parts of the country, has become a very popular remedy for this disease. It is very simple, yet it has cured many cases. It is made by boiling three handfuls of the inner bark in a quart of milk and water down to one pint; half of which is to be taken morning and night, every day until cured.

2. The Apicynum Currabinum, or Indian Hemp, one ounce in a pint of water, one-half wineglassful three times a day, is now known to be the best remedy we have for dropsy from liver troubles.

3. Take two drachms of the leaves of the fox-glove (*Digitalis*), and steep it for twenty minutes in a pint of water and give one teaspoonful of the tea thus made every three hours; and, if the case is severe, it may be given every two hours. The remedy acts powerfully upon the absorbents, and also carries off, through the kidneys, large quantities of water; at the same time, it strengthens the action of the heart and otherwise stimulates the circulation generally. Digitalis is generally cultivated in flower-gardens, and can be obtained at all drug-stores. It is a powerful medicine, and should be used with care; but this should not interfere with its use, for it is harmless when properly employed. It is almost a specific in dropsy of the chest, and valuable in all dropsical affections. It may be had at the drug-stores, either in its crude form—that is, the leaves—or it can be obtained in the form of a tincture. The tincture, however, is much more reliable than the infusion made as above directed, and answers the purpose better. The dose of the tincture would be, five drops three or four times daily.

4. The common rag-weed is another excellent remedy. In one case, where the patient seemed almost at the point of death, immediately after giving the rag-weed the water was carried off, the distressing and threatening symptoms passed quickly away, and

the patient speedily recovered. Prepare by making a strong decoction of the weed, then add a tablespoonful of fox-glove (*Digitalis*) tea to a pint of the decoction, or four drops of the tincture to each tumblerful. Take four or five tumblerfuls a day, according to the apparent necessity.

The Celebrated Grape Vine Cure for Dropsy—*The late Dr. B. F. Clayton writes in one of his publications: "The bark of the common grape vine is one of the best known remedies for the cure of dropsy. Among my recent cures was a lady of wealth, Mrs. Morse, who had long been afflicted with dropsy of the abdomen. She had been tapped a number of times, once over five gallons of water being drawn from her. Her physicians, both men of wide reputation, gave up her case as hopeless. At this critical period I was called in. I prescribed grape vine bark and this simply remedy soon restored her to health.* It is prepared by taking the inner bark of the common grape vine and burning it to ashes. Of this take a teaspoonful in a wineglass of Catawba wine. Increase the dose to nearly two teaspoonfuls as soon as it can be borne on the stomach." In this case the vapor bath was used once a day.

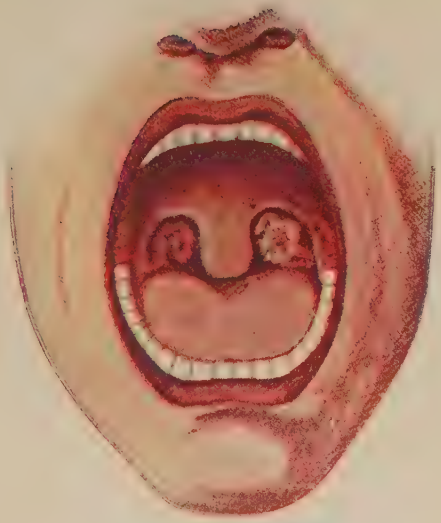
Thirty years of medical practice compels me to admit that the only remedies of true value to the sick and afflicted are found among the simples of nature. Twelve years ago I practically abandoned the use of drug remedies and my diary since then proves that I cured fifty per cent. more of my cases after than I did before discarding drugs. I shudder to think of the large number of patient sent to premature graves—really killed—every year through the use of drugs and nostrums. I know of no greater good to do my fellows than to implore them to test this matter for themselves. Inherited opinion or previous education, however, is hard to combat. For the man of prejudice or ignorance there is usually no help. He is wedded to his idols and there he will remain."

Accessory Treatment—In acute dropsy the diet should be similar to that in acute fever; in chronic dropsy patients require nourishing diet, but on account of the extreme feebleness commonly present, only easily digestible food should be taken. To allay the burning thirst often experienced, cold water is the best beverage; but any other that the patient desires, if not positively injurious, may be taken. Water may be said to be a real restorative, for it increases the amount of fluids excreted, to an extent greater than its own bulk; it also tends to improve the appetite and strengthen the pulse, while it diminishes the dropsical collections.

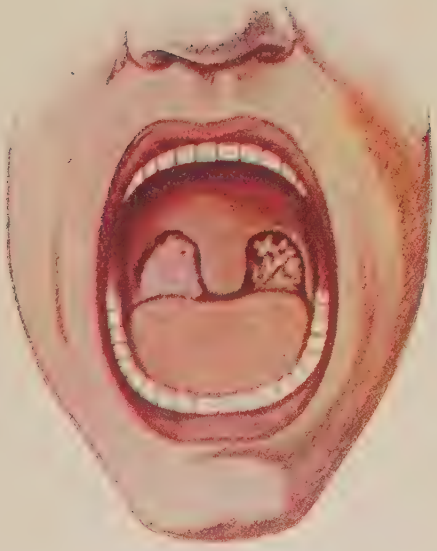
Warm baths for promoting perspiration, small doses of Hollands, tapping and other palliative measures may sometimes be necessary. A Turkish bath, if it can be taken, or a hot air bath three or four times a week will remove the trouble effectively.

DIPHTHERIA.

Causes—Like many other diseases, which human flesh is heir to, diphtheria may be traced to unwholesome, poisoned air arising from



SIMPLE SORE THROAT.



DIPHTHERIA.

Whether a case of Simple Sore Throat or Diphtheria easily determined by careful examination. See above

the many cess pools of filth contiguous to our dwellings, where the lungs are constantly inhaling its noxious influences. Decaying vegetable matter is considered one of the fruitful sources for the generation of vitiated atmosphere, nor is that alone the only source. Water seeping through decomposing matter, whether animal or vegetable, absorbs and becomes the vehicle which conveys the concentrated extracts or residuum, the germs so to speak of disease which day by day is taken into the system and becomes a slow poison to the body, which in the lapse of time must surely succumb to its powerful influences. The period of incubation as well as the condition of the system, has much influence upon the character of the disease: the natural vigor of the body to some extent determines the violence of this dread disease. Therefore, with these conditions as the source and origin of diphtheria we conclude we may safely term it a *miasmatic contagious* disease.

Symptoms—To simplify that we may the more readily comprehend, it is divided into simple and malignant; either division may be local and confined to the organ affected or it may be general pervading the whole organic system, which is always the case near the later stages of the malignant form. In the slighter or simple form it is usually ushered in with a rigor or a slight chill succeeded by fever, hot skin, aching limbs, some soreness of the throat, dryness in the mouth and fauces; sometimes so light are these symptoms that if the disease is not then prevailing one is liable to be deceived and attribute them to a cold. With *malignant diphtheria* however it is impossible to be so mistaken; after the rigor or chill occurs the febrile condition arising is characterized by vomiting, diarrhea, feeble, thrilling, accelerated pulse, sunken yet flushed countenance, the mouth dry, voice husky, throat red, covered or covering over with a gray or white deposit which soon merges together and soon forms a false membrane in the throat, which is of soft, slightly adhesive consistency, and if detached as a whole, exhibits a mould of the inside of the throat; where this false membrane has become detached, the spot exposed appears red and raw, from which surface is discharged a most offensive sanious fluid, the odor of which doubtless carries to the senses of the attendant the contagious nature of the disease, the virulence of which may be greatly mitigated by paying strict regard to common sense laws, frequent ventilation, removal of sputa and excreta, extreme even prudish cleanliness, disinfectants being in constant use to destroy the poison germs which are constantly forming and floating in the air if the disease is not arrested in its *surely downward course.*

Dangerous symptoms supervene, and may be distinguished by increasing odors in the room, on the breath and person; the pulse becomes quick and feeble, accompanied with vomiting, followed by drowsiness, delirium, and coma. The constitutional condition exhibits a gradual waning of all vital forces and we sit helpless by the bedside

of our sick one, uttering vain regrets at careless delay in this dread disease. *Delays are Dangerous.*

Distinguishing Characteristics—This disease may be known from quinsy by the manner in which the patient swallows. In quinsy the patient usually shuts the eyes, leans the head forward and swallows quickly, while in diphtheria the face and chin are raised, the eyes are usually wide open and staring, and the act of swallowing is performed slowly. The act of swallowing in quinsy and sore throat seems to cause severe pain, while in diphtheria swallowing does not seem so much plainful as difficult.

Diphtheria may be readily known from croup, from the fact that it is not attended with cough, while a peculiar cough is one of the characteristic symptoms of croup. In diphtheria the nose seems to be stopped up, or discharges a watery fluid, which gives to the voice a sort of nasal character, not met with in croup or any other form of sore throat.

We append a table exhibited by Prof. Hall of Westminster hospital, London, and one regarded by the profession as reliable in all particulars, for the purpose of showing the difference between diphtheria and croup.

Diphtheria.	Croup.
1. Is a general disease common to all ages. Is decidedly contagious and diminishes vital forces.	1. This is a local complaint, rarely occurring after puberty. Is not contagious, no diminution of vital forces, tends to inflammatory conditions.
2. Commences with a chill, sore throat, difficulty in swallowing, either hoarseness or cough at the outset, stridulous breathing a late symptom.	2. Commences with a cough, catarrh and hoarseness, little or no sore throat and difficulty in swallowing; cough, shrill, metallic; breathing stridulous from the outset.
3. The membranous affection begins in throat and ends in the larynx.	3. The membranous affection begins in the larynx and extends to the throat.
4. Fauces injected, swollen, presenting exudation.	4. Fauces injected, but rarely swollen, generally without exudation.
5. Submaxillary glands swollen.	5. No swelling of sub-maxillary glands.
6. Epistaxis and albuminaria frequent.	6. Epistaxis (nose bleed) and albuminaria absent.
7. Considerable, often extreme, prostration.	7. Little or no prostration of strength.
8. Demands stimulating, sustaining and tonic treatment.	8. Improves under emetics, local counter-irritants, expectorants, etc.

9. Subsequent paralysis frequent.	9. Is never followed by paralysis.
10. Frequently fatal, blood usually fluid and dirty brown, spleen enlarged and softened.	10. Rarely fatal, blood not changed, spleen not affected.

Remedies—1. *It is found by experience, that the simple remedy of lemon juice will cure almost any case of diphtheria. Dr. John L. Burton, of Brooklyn, N. Y., writes: "The juice of the lemon surpasses every other remedy I have yet known for the cure of diphtheria. I have used it successfully in my practice for the past four years.* (See medical uses of lemon, pages 622, for its uses.)

Many inveterate cases have been cured with this remedy, after they had been pronounced incurable by physicians.

2. **German Cure for Diphtheria.**—KEROSENE OIL HAS RECENTLY BEEN FOUND TO BE AN EXCELLENT CURE FOR DIPHTHERIA. PETROLEUM, WHICH IS KEROSENE OIL BEFORE IT IS REFINED, AND CAN BE BOUGHT AT ANY DRUG OR PAINT STORE, IS THE REMEDY USED ALL OVER GERMANY AS A CERTAIN AND RELIABLE CURE. Swab the throat every four hours, in severe cases every two hours. Shake swab before applying to prevent an excess of oil from passing into the throat. An adult may use it as a gargle, and at the same time take from six to eight drops internally. (For children, see table of doses.)

Kerosene oil is used in the same way petroleum is.

3. To one gill of soft water add a teaspoonful of diluted sulphuric acid. Dose, a teaspoonful every three hours; in severe cases every hour. For infants, double the amount of water used and half the dose. This is a celebrated Australian remedy, and was published by the authority of the government for the use of the people.

When malignant or putrid symptoms appear at any time in the disease, a gargle of one teaspoonful of chloride of lime to half a pint of water will be found very serviceable.

4. Take a tablespoonful of the juice of a thoroughly ripe pineapple every three hours. After each dose gargle the throat with some of the same. Repeat this treatment until the patient is relieved. It is stated by those who have used this remedy that it will cure the worst forms of this disease. Physicians recommend it as being one of the best domestic remedies in use.

Tannin is the Latest and Best Remedy Known for the Cure of Diphtheria. *It is the only remedy yet given to the public that has never failed to cure this disease. Prof. Brown, of Ontario, reports over fifty cases already cured with it, and not a failure has been known, even in the most malignant cases, when the patients had been pronounced incurable by the physicians. Three applications of the remedy destroy the bacteria, and the disease is then virtually cured.*

Tannin is made from the inner bark of the oak tree, consequently when necessary the bark can be used in place of the tannin, as shown on the next page.

The remedy is to be prepared and used as follows: Obtain at the

drug store one teaspoonful of tannin, to this add one teaspoonful of pulverized alum and one of pulverized sugar. Mix thoroughly. Compress the tongue, and by means of a quill or paper rolled into a tube, blow on the tonsils from one-fourth to a third of a teaspoonful. Repeat in five hours if necessary for several successive times. If the case is a very malignant one and on the following day the false membrane seems to be forming again, repeat as before.

Those who have used the white oak bark pronounce it likewise very efficacious. A tea is to be made of the inner bark, to which is added equal quantities of alum and sugar; the throat is then to be thoroughly gargled with it, at first every hour, after which every two or three hours.

Warm Vapor—The temperature of the room should be maintained at about 68° Fahr., and the atmosphere made moist by the steam from a kettle, with a long spout, constantly boiling on the fire.

Warm Baths—These are valuable accessories. The skin is hot and dry, the urine is often suppressed, the bowels confined, and thus the poison is retained in the system. Warm baths, and drinking freely of cold water, often restore the functions of the skin, the bladder and the bowels.

A Recent Method of Curing Diphtheria without Drugs. To cure Diphtheria without the use of drugs, deny the patient all food, both solid and liquid, but allow him as much fresh lemon juice in water as he may desire to satisfy his thirst. This treatment, if commenced in the early stages of the disease and rigidly adhered to, will cure the patient in from four to six days. The reason why the simple treatment is so effective is readily understood, when it is remembered that Diphtheria is caused by a poisoned condition of the blood brought on by contagion. The diphtheretic membrane which forms in the throat, the fever and other characteristic symptoms are the result of poison, or rather of the system trying to throw off the poison. Cutting off the food supply stops the further formation of the poison, while the lemon acid cuts the thick membrane that is forming in the throat threatening suffocation. By thus preventing the progress of the disease, it is starved and the natural powers of the body soon eliminate the poison, and the patient gets well. All that is needed thereafter is very simple; a light diet to strengthen the weakened system, but the diet must be carefully guarded or there is danger of a relapse.

This treatment is gaining favor in many sections of the country, because of the great benefit derived from doing without all food during the continuance of the disease. Dr. Stiles.

Preventive Measures. The cesspools should be emptied.

and if too small or defective, new ones built. The house water-closets, and local drainage should be thoroughly examined, and imperfections rectified; also, if necessary, chloride of zinc or of lime constantly kept therein, and thrown down the drains. All dust-holes and accumulations of refuse should be cleared away; a plentiful supply of water kept in the house, and every room regularly well cleaned, whitewashed, and thoroughly ventilated. See "Preventive Measures," under "Scarlet Fever," section 2, which is applicable to diphtheria.

The great debility accompanying this disease precludes the possibility of the patient taking warm baths; except at the first stage. Sponging with acetic acid or vinegar (one part) and hot water (six parts) two or three times a day is preferable.

DYSPEPSIA, OR INDIGESTION.

Causes—Irregularities in diet, such as over indulgence in luxuries of the table, partaking of rich, highly-seasoned, heavy, fat, sour or bad food; eating too quickly; imperfect mastication of food; eating too frequently, or, on the other hand, too long abstinence from food; the use of warm and relaxing drinks, green tea, coffee, tobacco, wine and alcoholic beverages; too little out-of-door exercise; excessive bodily or mental exertion; late hours; exposure to cold and damp, etc. Business and family anxieties are frequent causes of dyspepsia, and their operation is very general and extended, implicating not only the mucous coats of the stomach, but the liver, the bowels and often the whole nervous system. "The battle of life" is too often fought, not only with much wear and tear, but with almost overwhelming anxieties and disappointments; and the disgestive organs are often the first to suffer from depression of the mind. In this respect, the cause is often put for the effect, the common remark being that depression of spirits accompanies indigestion; but it is truer to say that indigestion accompanies depressed spirits. When the mind is depressed by disappointment or anxiety, there is a corresponding depression of the nervous energies, and so the stomach, in common with other organs, loses vital energy.

Hence, in the treatment of dyspepsia, the use of medicines and the observance of hygienic rules and habits must ever go hand in hand; for the former, however correctly prescribed, will alone be unavailing.

Symptoms—These vary greatly, both in character and in intensity, but there is commonly one or more of the following: Impaired, perverted appetite, flatulence, nausea, and eructations which often bring up bitter or acid fluids; furred tongue, often flabby, large or indented at the sides; foul taste or breath, heart-burn, pain, sensation of weight, and inconvenience or fullness after

a meal; irregular action of the bowels, headache, diminished mental energy and alertness, dejection of spirits, palpitation of the heart or great vessels; and various affections in other organs.

Remedies—1. A Boon for Dyspeptics. *The simple remedy the oil of eggs has been the means of curing many of the most inveterate cases of Dyspepsia, after years of medical treatment and the patients had abandoned all hopes of recovery.*

LEWIS BEERS, OF PHILADELPHIA, WAS CURED WITH THIS REMEDY AFTER HE HAD BECOME A HELPLESS INVALID, AND AFTER THE PHYSICIANS HAD GIVEN HIM UP TO DIE. IT IS ALSO ONE OF THE BEST PREPARATIONS IN USE FOR CURING BOTH ADULTS AND CHILDREN OF WEAK STOMACHS. The dose is from half to a teaspoonful of the oil three times a day before meals.

The oil is prepared in the following manner:—Fry, or rather dry the egg without the use of oil or grease, using moderate heat until the egg seems to be dry, then press the oil from it through a cloth, or, what is better, a lemon squeezer. If the oil is unpleasant to the taste of the patient, it can be taken in pulverized or loaf sugar. At the beginning, patients often take the oil of from fifteen to eighteen eggs a day.

2. Dr. I. Whitaker, of California, gives the following comparatively new remedy for this distressing complaint, and says he has cured, by the use of it, many of the worst cases, and that it acts almost like a charm in many forms of this disease. As yet he has not known it to fail, when taken as directed:

Essence of peppermint, one teaspoonful; Saleratus, one even teaspoonful; Water, one-half tumblerful. Mix. Dose, two teaspoonfuls twenty or thirty minutes before each meal, and on retiring at night.

3. Take one-half teaspoonful of the inner peeling of the gizzard of a chicken or turkey, dried and pulverized. Use it immediately after each meal. This is an old remedy, but those who are not acquainted with the virtue and curative power of it will be surprised at its prompt action when they once make use of it.

4. Take a piece of rennet the size of the hand, and put it into a half pint of warm water and let it soak over night, and of this liquid take two tablespoonfuls twice daily. Occasionally renew. This remedy has often proved efficacious, and is highly recommended by some practitioners.

5. A German physician gives the following: "Take every morning, before breakfast, a teacupful of hot water, as hot as can be drunk. I have cured the worst cases in two or three weeks with it."

Other remedies might be added, but the above are some of the best in general use.

Dyspeptic patients should carefully examine the directions

given in the following pages, for a cure will often depend on a compliance with these instructions.

Additional information may be obtained from the article entitled, "Diet for Dyspepsia," in another part of this volume.

General Habits—Mental or bodily occupation should not be renewed immediately after a full meal; nor should food be taken without a few minutes pause after exhaustive fatigue. Violent muscular or mental exertion arrest digestion by engaging the nervous energies in other directions. The weary man—whether weary from the sweat of his brow or sweat of the brain—should rest before he eats; and if the cause of fatigue has been in operation till the time of rest approaches, solid food may then be productive of the most serious results.— *Ellis.*

The following is a cure for dyspepsia without medicine:

It is plain inference that, as wrong diet often brings on this disease, a right regime will cure it. You need not, in this case, take any medicine at all. The first thing to be observed is, plenty of gentle, healthful, out-door exercise; then, eat your meals at precisely the same hour every day, and eat nothing between meals. Use no tobacco, tea, coffee, spirituous or malt liquors. Avoid, as far as possible, all that might occasion anxiety or trouble.

Your diet need not be unnaturally low—only do not eat food too highly seasoned, or overload the stomach, and especially shun hot bread or biscuit. A moderate quantity of simple food, well chewed, is what you need. Take plenty of time at your meals; never eat in a hurry, and never eat so much that you will not feel hungry at your next meal-time. The doctor may tell you to eat little and often; but this is just what does the mischief. Do not mind him, but follow nature; that is, follow all your innocent habits, which are all you can know of nature. Do not suffer him to put you out of the track of life-long custom, so that you may fall an easy victim to his medicines. Should you chance not to be hungry at meal-time, just miss a meal. It will do you no harm. If you are thirsty, drink warm milk or water, or both, mixed and sweetened to your taste. You will find this more satisfying than cold drinks. Do not drink too freely while eating, but allow the saliva to moisten the food.

For the sensation of heat in the stomach, common to dyspeptics, squeeze a piece of flannel out of cold water, and lay it, still quite wet, over the stomach, with a dry cloth over that to prevent wetting the clothes. This may be used at any time, day or night; though the best time is at night, on going to bed, and then you can lay it aside in the morning; but, on taking it off, bathe the part, wipe dry, and then rub it briskly with the hand.

As to food, be governed by your own experience, and eat only such as digests easily. Close each meal with two or three teaspoonfuls of wheat-bran moistened and made agreeable to your taste by the addition of a little cream and sugar. You will soon

become quite fond of it, and regard it as the pleasantest part of your meal. This recommendation is very important and valuable. We have known it to cure, perfectly, cases of dyspepsia of more than twenty years' standing, which had resisted all the agencies of medicine, administered by the most accomplished physicians. It is regarded, by those who have tried it, as simply infallible. You must remember, however, should you eat, as a guest, at any other table than your own, always to carry your bran with you, and use it at the conclusion of your meal. These directions being carefully observed, you will soon cease to be a dyspeptic, without ever taking a single dose of medicine.

Accessory Treatment—Dr. Ellis, in his *Domestic Medical Work*, recommends the following excellent accessory measures: "As in this disease the gastric juice is either lessened in quantity or deteriorated in quality, which allows the food to be decomposed instead of being digested, it is all-important that the patient abstain from drinking much at his meals. He may gratify his thirst at other periods. We can only expect to permanently cure this or any other chronic disease, by removing the cause; therefore, the reader will do well to consult the chapters on the use and abuse of the digestive organs, the conditions requisite for physical development and preservation, excessive labor and amusements. The patient should avoid all substances which are of difficult digestion, or which disagree with him, and he must not be constantly trying different articles of food. As a general rule, he should avoid all vegetables, with the exception of well-boiled rice, Irish and sweet potatoes, and these should be cooked dry and nealy. Sweet peaches and ripe blackberries may be used with moderation. Good fresh milk can generally be taken, unless it disagrees with the patient. Sweet cream and good fresh butter, *cold*, may be used moderately with stale brown bread, rice, or potatoes. Also tender mutton, beef, venison, turkey, chicken, partridge, and some of the smaller birds, if kept some time before being cooked, may be used; and even soft-boiled eggs are often allowable. Salt may be used moderately, but all other condiments should be avoided. Among the above articles the patient will find all he needs, and he must confine himself strictly to the above list, and above all things shun the use of stimulating drinks, for if they afford temporary relief, they are sure to weaken the stomach still more. Milk and hot water, only moderately sweetened, weak cocoa, and at most, weak black tea, are the best drinks. He should eat at regular hours, never more frequently than three times a day, and eat slowly, and masticate or chew his food well." We therefore warn the busy, the solitary, or, on the other hand, those persons who talk too much during meal-time of the danger of neglecting to chew their food properly. As a rule, animal food is easier of digestion than vegetable, and it is well known that a weak stomach is much more liable to flatulence and other symptoms of digestion after vegetable food than after

animal. Indeed, the teeth of man partake of an intermediate character, as he is no doubt intended to subsist both on animal and vegetable food, so that a due admixture of both is probably more easily digested than a more or less exclusive use of either. It is important to remember that *starch* is not a nitrogenous or flesh-forming substance. Foods, therefore, the chief constituent of which is starch, as potatoes, rice, sago, etc., are farinaceous foods and very necessary for the formation of fat, and should be eaten only as additions to food containing a large amount of nitrogenous material.

Further, it is especially necessary that the dyspeptic should select tender and perfectly fresh animal food, and have it cooked so as to retain all its natural juices. Hard, dried, cured meats—ham, tongue, sausages, and the like—are especially to be avoided. In the same category we may place veal, pork, twice-cooked meats, salmon, lobsters, crabs, salads, cucumbers, raw vegetables, cheese, new-baked bread, coffee, and all other substances known to disagree with the patient. The last remark is important; for if pain or discomfort follow any kind of food or drink, it should be regarded as a warning to avoid it afterwards.

The patient should not fail to examine the articles on "Condiments," and on "Tea and Coffee."

DIABETES (Excessive Flow of Urine).

This disease is indicated by excessive discharges of sweet urine of a pale-yellowish or greenish-yellow color. The first symptom usually is the frequency of the calls to pass urine, with an increased quantity of it. Sometimes the patient discovers that it is sweetish to the taste. The patient soon begins to be troubled with great thirst, the appetite often becomes craving, the mouth dry and parched. There is a sensation of sinking, with faintness at the pit of the stomach, and other dyspeptic symptoms. The quantity of urine discharged usually varies from ten to twenty, and sometimes from thirty to fifty pints or more in twenty-four hours, and this often for weeks or months together. Add a little yeast to some of the urine and set it down in a warm place, and if there is sugar present it will begin to ferment within twenty-four hours, whereas healthy urine will not go through the same process. This disease is very slow in its progress, sometimes lasting for many years.

Remedies—1. An infusion of equal parts of chamomile flowers and sage, drunk twice a day, in wineglass doses, will prove effective in many cases of this disease.

2. *A new and simple remedy has recently been introduced for the cure of this disease, which is composed of alum and milk.* Its use has been attended with the best results, often curing in the short space of a few weeks. It is prepared by adding two pints of milk to one and one-half drachms of alum. Dose, one gill, three times a day.

3. Skim-Milk Treatment—Several cases have been reported in the medical journals, of diabetes in which the quantity of urine was steadily and greatly diminished, and the specific gravity correspondingly reduced, by restricting the patient to six pints of skimmed milk per day. This treatment is cheap, and patients can adopt it without interfering with their usual occupations. Mr. H. May (Birmingham) gave five pints of milk a day to a diabetic patient, and in six weeks the specific gravity fell from 1.040 to 1.017; the patient at the same time became stout, and stronger than she had been for years. Dr. Donkin has also successfully prescribed it; but he insists that "skim-milk loses its curative power altogether, when administered in combination with solid animal or other nitrogenous food. By the skim-milk treatment, he says, "I mean the administration of skim-milk properly prepared, in quantities measured and limited to the requirements of individual cases, given at regular intervals in definite doses, and to the exclusion of all other food for a longer or shorter period. This system of treatment, in short, must be pursued in a strictly methodical manner, and according to rule; and if this is not done, success must not be expected." He gives seven to ten pints, according to circumstances, divided into meals taken at regular intervals. Two or three pints may be made into curd, daily, by the essence of rennet. Dropsy has also been very successfully treated with milk diet in India. Hence, we may presume that skim-milk has some physiological effect on the kidney and its secretions. After the skim-milk has been taken for about six weeks, almost every variety of animal food may be taken once, twice, or thrice daily, and bran-biscuits, gluten-bread, diabetic bread, may be added by degrees to the diet. To allay the intense thirst, acid drinks and alkaline waters may be given. A Mr. Swick, in Delaware, Ohio, says, "I consider this 'milk-remedy' was the means of saving my life."

4. A professor in a medical college in California writes, "The best remedy we have used, in this part of the country, for diabetes, is the water hoarhound, called bugle-weed; botanically, it is the *Lycopus Virginicus*.

Dose of the tincture, one teaspoonful, four or five times a day; and, as the disease is a stubborn one to cure, it will have to be persevered in for some time." The herb answers a good purpose when steeped and drunk as a tea. In this form, it is often as efficacious as the tincture. It is found in all drug-stores.

5. "The treatment next in favor," continues the Doctor, "is the use of the bird's knot grass, known also as door-yard grass, chickweed, etc., and found in nearly every door-yard. Botanically, it is the *Polygonum Aviculare*. This should be prepared as the bugleweed, and taken freely, and continued as above."

6. Tannic Acid.....5 grains.
Pulverized Opium.....½ grain.
Mix. To be taken thrice daily, between meals.

7. Veratria ..... 1 drachm.
Simple cerate (or vaseline)..... ..... 1 ounce.
Make an ointment, and rub a piece the size of a cherry along the spine morning and evening. Dr. S. D. Gross, Phila.

Accessory Treatment—Amylaceous food (such as contains starch), and every substance containing sugar, or that is readily convertible into it, should be avoided. Potatoes and fine flour in every form should be omitted. The most nutritious food should be preferred, and the greater proportion consumed in the fresh state. Fat meat, fish, oysters, eggs, milk, good soups thickened with finely powdered bran, cocoa prepared from the nibs, lettuce with oil, vinegar, etc., may be taken, if they agree, and be varied to suit the patient. The action of all articles must be watched, and anything that occasions indigestion avoided. As a substitute for ordinary bread, bran-bread or brown-cakes, or ground almond powder made into bread or biscuits, with eggs, are recommended. "Diabetic bread" made of the following ingredients bears a closer resemblance to ordinary brown-bread than any previously suggested, and is often found more palatable. To eight parts of gluten add two parts of bran nearly free from starch, and a small quantity of butter. It is more nutritious than any other, and prevents and corrects constipation. The excessive thirst of diabetic patients may be gratified, as fluids aid in the elimination of the sugar in the blood, and patients become greatly depressed if they are not allowed to drink as much water as they desire. Warm baths, the use of flannel, and a warm climate are valuable accessories in the cure of diabetes. Dr. Bouchardat recommends "laborious bodily exercise, especially gymnastics," observing that profuse perspiration on farinaceous food lessened sugar in the urine. It is difficult, if not impossible, to cure this disease in a person who is and continues in the daily habit of using intoxicating liquors.

DANDRUFF.

Remedies—1. Wear the hair short, and let the head covering be as light and well ventilated as possible. Avoid applications of all kinds of grease, or dyes. Wash the head every two or three days with warm salt and water, and follow each washing by vigorous rubbing with the balls of the fingers. The better the general health, the less tendency there is to the accumulation of dandruff.

2. Take a teaspoonful of refined, powdered borax, and two teaspoonfuls of glycerine. Dissolve in one-half a tumblerful of water, and, before using, brush the head well. Then, wet the brush with this solution and apply to the head every day for a week.

3. Carbolic acid, diluted and perfumed, makes an excellent

hair-wash, and its occasional use tends to remove dandruff. Rub the head every morning with the tip ends of the fingers, and after a week you will find the condition will improve vastly.

DELIRIUM TREMENS.

The suspension of the habitual use of alcoholic or fermented liquors is the cause of this disease, and it is more liable to occur with steady drinkers, than with those who only take an occasional "spree."

Symptoms—Trembling of the tongue, when the patient attempts to protrude it, and twitching of the cords in his wrists, are among the first. He appears frightened, and begins to see the most frightful or disgusting objects; such as serpents, rats, toads and other loathsome reptiles and vermin, crawling over his head, his person, or about his room, and he hunts them among his bed-clothes. He is always afraid. Robbers, officers, or creditors, are after him. He imagines that he hears them conspiring against him. He sees knives and fire-arms pointed at him, strives to escape from his tormentors, and is liable to injure himself or others, in striving to protect himself or escape.

Remedies—To prevent the full development of the disease, or cure it after it has been developed, in most cases, give the patient moderate but regular doses of brandy, and then withdraw the stimulant gradually as the disease abates. A tablespoonful of brandy, in water, once in two hours, will, in many cases, be sufficient; but if the patient has been a hard drinker, he may require two tablespoonfuls, once in two hours, or even, in some severe cases, more frequently; and the brandy should be continued until the patient falls into a quiet sleep. When he awakes, it need not be repeated unless symptoms of the disease return, and it should never be continued longer than is absolutely necessary to relieve the visions and sleeplessness. For debility, give no stimulants, but only beef-tea, chicken-broth, mutton and beef.

2. The following is a very excellent treatment to begin with: Give a turkish or hot air bath, lasting half an hour, then give the following:

Chloral hydrate	2 drams.
Tincture capsica	1½ ounces.
Bromide potass	1 ounce.
Camphor water	3 ounces.

Take a spoonful every half hour until four are taken.

The treatment above indicated, and generally adopted by the medical profession is, first, to allay the paroxysms and calm the nervous system by giving brandy and other spirits. But it is somewhat questionable whether this is the better course to pursue.

The redness of the face, and the pulsation of the arteries and heart, indicate determination of blood to the head; therefore, the first course to pursue, is to equalize the circulation by bathing the feet and legs in warm lye-water, and then apply mustard-plasters to the bottoms of the feet, and nape of the neck, and give the most nutritive food that can be obtained.

A successful plan is that of giving highly nutritious food, and procuring sleep by giving large doses of chloral. The first dose, say thirty grains, should be followed, unless the patient sleeps, by a repetition of the remedy in one or two hours, but in smaller doses, say twenty grains.

When sleep is induced, if prolonged, the patient may be aroused at the end of eight or ten hours, and made to take some nourishment.

1. Large doses of the tincture of foxglove (*Digitalis*) ten drops given at once, and repeated every two or three hours, have been useful in severe cases.

2. It is said that a strong decoction of wormwood, taken freely, has been highly successful, in some Puritanical Hospitals, perhaps for the purpose of exciting the intense disgust of the patients for all kinds of spirituous liquors. We would suggest the addition of a little gall, as an additional means of securing the above purpose.

DYSENTERY, OR BLOODY FLUX.

There is a difference between this disease and diarrhea. In the latter complaint the discharges are more copious, thin and watery, than in the former.

Dysentery usually commences with severe pains in the bowels, with frequent inclinations to go to stool, which is small in quantity and sometimes mixed with blood. There is generally a peculiar sensation of bearing down while at stool, as if the whole bowels were falling out, and accompanied with considerable pain.

Sometimes chills and fever precede the symptoms, in other cases, they either accompany them or soon follow, if the attack is at all severe. Griping pains in the abdomen, followed by discharges from the bowels, are the first prominent symptoms.

Causes—This disease may be caused by unripe and acid fruits, indigestible food, cathartics, exposure to cold night air after a hot day, and sudden changes of temperature.

Remedies—1. *Purchase at the drug store, or dig a handful of the bark of the root of the common willow. Make a tea of it, and drink one-half to one-fourth of a teacupful, three times a day. It is one of the best remedies in use for this disease.*

2. In many obstinate cases, the following remedy has acted almost like a charm: Try the tallow from fresh mutton-suet, and give a tablespoonful three times a day. Frequently, two or three

doses are sufficient to effect a cure, and it is especially good when there is much irritation of the bowels.

3. To a pint of water add pulverized slippery elm bark, enough to make a thin mucilage. Let it simmer for half an hour, then strain it through thin muslin; the dose is two teaspoonfuls every two or three hours. A spoonful of glycerine, added when it is cool, will keep it from souring. This remedy is frequently used in alternation with the mutton suet remedy. We recommend that when so used in alternation every two hours, the dose of the mutton suet remedy be reduced one-half. These two remedies, when thus used, have been known to cure dysentery when the patient had been given up to die.

4. Take butter, after being churned, without being salted or washed; clarify it over the fire like honey. Skim off all the milky particles when melted. Let the patient (if an adult) take two tablespoonfuls of the clarified remainder, two or three times a day. For the proper dose for a child, see "Table of Doses for Children." This is a very effective remedy, and many families who have employed it say they have never known it to fail to effect a cure.

5. The following is an old but a favorite remedy with many people: To one-half a pint of water add one tablespoonful of salt and two of vinegar. Dose, a wineglassful every one or two hours. For children the proportions should be one-fourth the amount of salt and vinegar.

6. Pulverized catechu.....2 drams.
Pulverized acacia .....½ ounce.
Water.....6 ounces.

Mix. Take a tablespoonful every two hours.

Dr. F. Van Niemeyer, Tubingen.

7. Pulverized opium.....1½ grains.
Nitrate of potash.....5 grains.
Calomel.....1 grain.

Mix. To be taken every two hours until the pains and tenesmus (bearing down of the rectal tissues) are relieved and patient inclined to sleep.

Dr. A. S. Davis, Chicago.

To Cure Dysentery Without Medicine—Some people have the idea that the patient should eat all he can to keep up the strength; but this is quite wrong. There is the greatest danger in too much eating. If you would cure the disease, without leaving any bad effect in the system, eat but little or, which is better, eat nothing at all for a few days, and when you commence eating again, eat only a little at a time, and not oftener than at regular meal-times. Should it become necessary to take anything to keep up the strength while the disease is on you, you may take a little flax-seed tea, or slippery-elm tea, or something else of a simple and light nature.

Take a warm sitting-bath every day. After coming out of the water, dry the skin by wiping the whole surface with a towel. Then let some strong, healthy person rub the surface with his bare hands. Finally, cover the bowels with cotton, on which has been sprinkled a little gum-camphor. The stomach and bowels, feet and legs should be kept warm by eternal applications. Renew warm flannel often enough to keep the bowels, stomach and extremeties warm. Lie in bed most of the time, and do not become excited about anything. This treatment will usually effect a cure in a few days.

A bag filled with pounded ice placed on the abdomen has been highly recommended, when there is congestion.

When the disease becomes chronic, it takes a little longer to cure it. Eat sparingly of wholesome food. Make a tea of cloves and flax-seed, and occasionally sip it. Give an injection of tepid water after each passage; or, perhaps, it will be better to give an injection of slippery-elm tea or flax-seed tea, instead of water.

Accessory Treatment—The patient should maintain a recumbent posture in bed, in a well-ventilated apartment, and, in severe cases, use the bed-pan instead of getting up. Local applications afford great relief. If the pains are very severe, large, hot poultices, or flannels wrung out of *hot water*, should be applied over the abdomen, a second hot flannel being ready when the first is removed. Great benefit often results from injections, if there be not too much inflammation to admit of the introduction of the enema tube; they may be administered after each evacuation, if they prove beneficial. The first two or three injections may consist of from half a pint to a pint of tepid water, the temperature being afterwards gradually reduced. Mucilaginous injections are also frequently of service. The drink should consist of cold water, toast-water, gum-water, barley-water, etc.; the diet should be restricted to lime-water and milk, arrow-root, cocoa, broths, grape-juice and other liquid forms of food—all cold. Animal food and stimulants should be avoided; when recovery has considerably advanced, and in chronic cases, beef-tea and other animal broths may be taken.

Preventive Measures—Besides avoidance of the conditions pointed out under "Causes," it is necessary promptly to remove, disinfect and bury the evacuations from a dysenteric patient, and to adopt the "Accessory" and "Precautionary Measures" pointed out under "Typhoid Fever."

DIARRHEA.

Causes—Overeating may occasion diarrhea, by the mere quantity of the food introduced, but these results more commonly follow the *mixture* of various kinds of food and drink in one meal.

Such are, especially, sour, unripe, wilted, or decaying fruits or vegetables; badly cooked food; fatty and rich food; various kinds of shell-fish; putrid or diseased animal food.

Impure water is a fruitful cause of diarrhea. Water contaminated with sewage or sewage gases, or with decomposing animal matter, is almost certain to occasion diarrhea.

The heat of summer, the hot days but chilly nights and mornings of autumn, are frequent exciting causes of diarrhea; so is the application of cold to the perspiring body, or of the sudden checking of perspiration. Hot weather is a frequent exciting cause of diarrhea, termed, on this account, summer-complaint.

The depressing influences of fear or anxiety, or the violent excitement of anger are frequent exciting causes.

Symptoms—Nausea, flatulence, griping pain in the bowels, followed by loose evacuations, which may vary greatly as to their consistence, nature, odor and color, being watery, or slimy, bilious, or bloody. Furred tongue, foul breath and acrid eructations are generally superadded. The circulation, breathing and other functions are usually unaffected. In summer-diarrhea, the discharges are chiefly bilious, and there are often violent pains in the abdomen, cramps in the legs and great prostration.

Remedies—1. *Rice when properly prepared and used, will probably cure a greater variety of cases of diarrhea than any other known remedy. The renowned Dr. Gunn stated that it was well nigh infallible.* It is prepared as follows:

Parch a pint of rice until it is perfectly brown. Pour over it about a pint of boiling water and set it on the back of stove to steep. Of this tea drink a teacupful at once and the remainder during the succeeding six hours.

2. **Peppermint Cure for Diarrhea**—Essence of peppermint properly administered is one of the surest, as well as simplest remedies for this complaint. A bottle of peppermint should be in the medicine case of every well-regulated family. As soon as an attack of diarrhea comes on, drop fifteen drops of essence of peppermint in a teacupful of hot water, and sip with a spoon as hot as can be borne. Repeat the dose every three hours until cured.

3. Dr. Benjamin Clark states that in the East Indies warm milk is regarded by many as a specific, which means an almost certain cure. One pint of warm, fresh, sweet milk, every four hours, will often check the most violent diarrhea, or dysentery. A gentleman states he has tried it as often perhaps as fifty times in his own case, with unvarying success in from six to twelve hours. One man seemed to be dying from diarrhea of eight months' standing; in three weeks he was a hale, hearty man.

4. *Dr. W. S. Davis, of Chicago, says "If all other remedies fail, hot milk, when rightly used, will cure any case of diarrhœa, common or chronic. I never knew a single failure in all my practice when the patient took the remedy as prescribed;* that is, take

from one to three pints of hot milk five or six times a day until wholly cured. Take the milk as hot as can be eaten with a spoon. Don't drink it. Eat absolutely nothing else. You will soon find the remedy pleasant to take and the cure positive.

5. The following is the old celebrated neutralizing mixture for all bowel difficulties: Laudanum, one drachm; rhubarb (pulverized) two scruples; saleratus, two scruples; peppermint (pulverized), two scruples. Add half a pint of hot water, sweeten with sugar. Dose, one to two teaspoonfuls every two or three hours, according to the urgency of the symptoms.

Diet—The diet may consist of barley-water, rice-water, flax-seed tea, gum-Arabic water, infusion of elm bark, Iceland moss, sago with boiled milk and toast-water. Well-boiled rice, flavored with powdered cinnamon, is one of the most digestible aliments, and is, therefore, very good. Fats, all acids, juicy vegetables and unripe fruits must be prohibited. Ale, porter and beer must not be used. As soon as the appetite returns, the tender part of the sirloin of beef, or boiled mutton, or chicken will be more readily digested than strong soups, which are exceedingly improper.

Chronic Diarrhea—Simple diarrhea remaining uncured for some time becomes chronic. In such cases the remedies must be of a soothing and tonic character, persistently continuous. At the same time attention must be paid to the liver and skin, for both will be found more or less out of order. See "Liver Complaint."

Remedies—1. Take, for an adult, one drop of the oil of spearmint, three times a day. This is a new remedy, and seldom equalled. If the above quantity is not effective, add another drop. Frequently, two or three doses will be sufficient.

2. An infusion of the persimmon (*Gum-Tree*) bark, is esteemed a valuable remedy for chronic diarrhea. Dose, a tablespoonful three times a day. A sirup of the unripe fruit is reputed to be equal if not superior to the bark for this purpose, employed in similar doses.

3. A decoction of blackberry-root is also an admirable remedy in this complaint; it is both tonic and astringent, and may be relied on.

4. Make a tea of butter-weed (*Erigeron Canadensis*) by boiling two or three handfuls of it in sweet milk. Sweeten with white sugar, and drink one-half a teacupful or more, three times a day.

The butter-weed is known by the various names of Canada fleabane, colt's tail, pride-weed and horse-weed.

DEAFNESS.

This affection may be owing to inflammation of the internal ear, to a relaxed condition of the drum of the ear, to paralysis of the nerve of hearing, or, to a collection of wax in the ear In the

majority of cases, though, it is difficult to correctly determine the cause of the deafness.

Remedies—1. Where there is want of secretion, or dryness of the ear, take, of glycerine, two teaspoonfuls; sweet oil, one teaspoonful. Mix. First cleanse the ear carefully, but thoroughly, with castile-soap and warm water. When it is well dried, moisten the entire cavity of the ear with the above mixture, using a small feather for this purpose, repeating it every day. If there seems to be a secretion of wax in excess, cleanse the ear as before, and apply the following: Glycerine, two teaspoonfuls; strong infusion, or tea, of white-oak bark, one teaspoonful. Mix. Apply the same as the first, every day. Deafness may be produced by cold. When this is the case, drink freely of smart-weed tea, or pleurisy-root tea, for a few days.

2. Stew garlic in sweet-oil, strongly pressed, and strained. A few drops, each day, should be put into the ear from a warm teaspoon, and stop the ear with cotton or wool. You will find this remedy unsurpassed in this form of deafness, originating from cold.

3. Put into the ear a few drops, once daily, of the following mixture: Harlem oil, fifteen drops; glycerine, one teaspoonful. Mix. It is often very effective.

4. Another means, which sometimes succeeds, is to close the mouth tightly, and grasp the nose with the thumb and finger, take a full breath, and blow as hard as possible, allowing no air to escape, except what passes from the throat to the ear through the eustachian tubes. This will often relieve the deafness resulting from a cold. Other forms of this disease should come under the care of an accomplished aurist.

5. Take, of carbonate of potash, five grains; glycerine one-half ounce; water, one ounce. Mix. First, carefully syringe the ear with castile-soap and water; then put three or four drops of the above mixture into the ear, once or twice daily. This remedy has been the means of curing many cases of deafness, caused by catarrh—the result of a cold. Before using this remedy examine the ear and see if there is not hardened wax pressing on the drum, if so a drop or two of glycerine will moisten it, when it can be removed.

6. Prof. J. H. Bundy, of the California Medical College, recommends the following: "Take, of sassafras-oil, five drops; sweet-oil, half an ounce. Mix, and drop into the ear, once or twice a day. I have been very successful with this treatment."

Dr. Thomas says the following method has been employed, in some cases of severe and long-continued deafness, with great success and efficacy:

"The mode of using it is to fill the mouth with the smoke of the strongest tobacco, instantly closing the mouth and nose, and then for the person to make all possible effort as if he meant to force the smoke through his nose, which must be prevented by holding the nostrils very tight; this forces the smoke through the

eustachian tube into the ear. These efforts are to be repeated until one or both ears give a seeming crack, immediately on which the hearing returns."

This process is simple and cheap, and probably without hazard, therefore may be tried by any one.

GENERAL HINTS ON AFFECTIONS OF THE EAR.

Wet or Damp Ears—A frequent cause of disease of the ear is the practice of leaving the head and ears of children imperfectly dry after washing. It is the more necessary to guard against this danger if there already exist any discharge from the ear. After bathing, the greatest care should be taken to dry the hair and ears thoroughly. As a further precaution, a piece of fine linen or blotting-paper should be twisted into a coil, and gently introduced into the cavity of the ear, to absorb any remaining moisture.

Boxing the Ears—Parents, governesses, and others who have the care of children, should be aware of an accident very liable to occur from blows on the head, or boxing the ears; namely, rupture of the *membrana tympani*, a membrane which closes the bottom of the meatus, and is stretched something like the parchment of a drum. The accident may be recognized by a sense of shock in the ear, deafness, and a slight discharge of blood from the orifice; and if examined by an ear speculum, the rent may be seen. There should be complete rest for several days, and a warm weak arnica-lotion used.

EPILEPTIC FITS (Epilepsia).

This disease is a sudden deprivation of all the senses, wherein the patient falls suddenly down and is affected with violent convulsive motions. Children, especially those who are delicately brought up, are most subject to it. It more frequently attacks men than women, and is very difficult to cure. When the epilepsy attacks children, there is reason to hope it may go off about the time of puberty; when it attacks any person after twenty years of age, the cure is difficult; but when after forty, a cure is hardly to be expected. The sooner after the first attack the cure is attempted the greater the hope of a complete cure. If the fit continues only for a short space and returns seldom, there is reason to hope; but if it continues long and returns frequently, the prospect is bad. It is a very unfavorable symptom when the patient is seized with the fits in his sleep.

Causes—The epilepsy is sometimes hereditary. It may likewise proceed from frights of the mother when with child; from

blows, bruises or wounds on the head; a collection of water, blood or serous humors in the brain; a polypus; tumors or concretions within the skull; excessive drinking; intense study; excess of venery; worms; teething; suppression of customary evacuations; too great emptiness or repletion; violent passions or affections of the mind, as fear, joy, etc.; hysteric affections; contagion received into the body, as the infection of the small-pox, measles, etc.

Symptoms—An epileptic fit is generally preceded by unusual weariness, pain of the head, dullness, giddiness, noise in the ears, dimness of sight, palpitation of the heart, disturbed sleep, difficult breathing; the bowels are inflated with wind, the urine is in great quantity but thin, the complexion is pale, the extremities are cold, and the patient often feels, as it were, a stream of cold air ascending towards his head.

In the fit, the patient generally makes an unusual noise; his thumbs are drawn in toward the palms of the hands; his eyes are distorted; he starts and foams at the mouth; his extremities are bent and twisted various ways; he often discharges his semen, urine and feces involuntary, and is quite destitute of all sense and reason. After the fit is over, his senses gradually return, and he complains of a kind of a stupor, weariness and pain in his head, but has no remembrance of what happened to him during the fit.

The fits are sometimes excited by violent affections of the mind, a debauch of liquor, excessive heat, cold, or the like.

This disease, from the difficulty of investigating its causes and its strange symptoms, was formerly attributed to the wrath of the gods or the agency of evil spirits. In modern times it has often, by the vulgar, been imputed to witchcraft or fascination. It depends however, as much upon natural causes as any other malady, and its cure may often be effected by persisting in the use of proper means.

Remedies—1. The ice-plant is a great remedy for the treatment of this kind of fits, especially in children. It may be given in powder, in doses of one-half to a teaspoonful, night and morning, in some warm herb-tea, such as sage or pennyroyal, if convenient. Or the decoction may be employed in teaspoonful doses.

2. This disease has frequently been cured by the patient using almost an exclusive milk-diet.

3. Dr. Henry states that several patients have been radically cured of epileptic fits by the following prescription, in three or four weeks: Take one pound of fresh, green leaves of stramonium, pound them, press out the juice, put it in a pewter plate, and place in the sun to evaporate; stir frequently, until the extract is fit for pills; then give a small-sized pill of it night and morning. The dose may be increased to three times a day.

4. We give the formula of an excellent physician whose reputation in curing this disease is widely known. Bromide of potash,

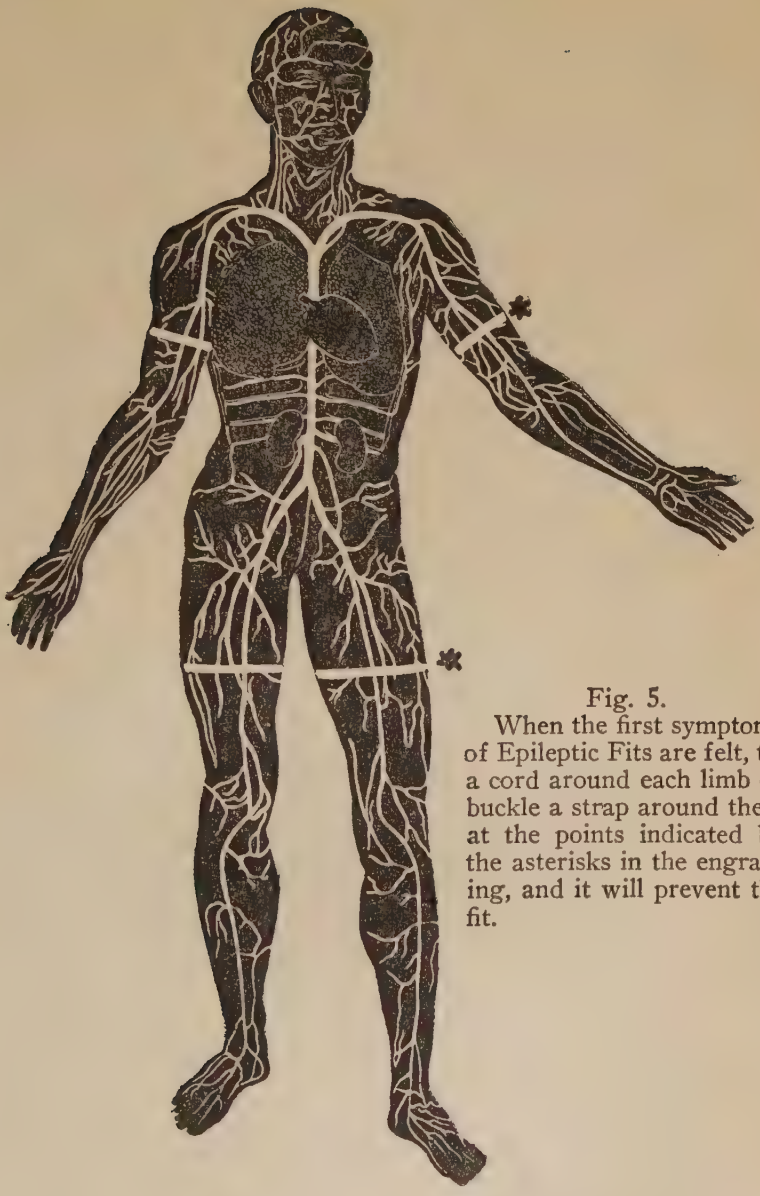


Fig. 5.

When the first symptoms of Epileptic Fits are felt, tie a cord around each limb or buckle a strap around them at the points indicated by the asterisks in the engraving, and it will prevent the fit.

one part to eight parts of distilled water. Dose varied by conditions from a teaspoonful to a tablespoonful three times a day.

5. I have found that fine salt has a very salutary effect on epilepsy. As soon as there are any premonitory symptoms, give a teaspoonful in a little water, and, if practicable, repeat in fifteen or twenty minutes; it prevents or shortens the fit.

6. As soon as a person is taken with a fit of epilepsy, cover his face with black silk, tying it over the head and neck, and using but one thickness. This novel method of cure was first adopted in Paris, with marked success, in that it rendered the fits gradually lighter, until at length they ceased altogether, and the patient remained permanently cured.

The following is the celebrated Dr. Brown-Sequard's prescription for epilepsy:

Potassia iodide.....2 drachms.
" bromide.....2 "
Ammonia " .....½ "
Potassia bi-carbonate.....40 grains.
Infusion columba.....6 ounces.

Dose, a teaspoonful before each meal and three tablespoonfuls at bedtime. This will cure epilepsy.

For Preventing Epileptic Fits—Two methods have recently been discovered for preventing attacks of epileptic fits, which are of great value to those afflicted with this disease. First, on the first symptoms of the convulsions, give or force the patient to swallow some water. The second is, to choke the patient until he makes an effort to swallow.

Accessory Treatment—The patient's tongue should be put back into his mouth, and a cork or linen pad fixed between his molar teeth; he should be laid on a couch or rug, fresh air freely admitted around him, his head slightly raised, and all ligatures relaxed that interfere with circulation and breathing. Throwing cold water in the face does no good; and restraint should not be exercised beyond what is absolutely necessary. In epilepsy preceded by the *aura*, a firm ligature applied above the part where the sensation is felt is said to prevent the attack. After the fit, the patient should be allowed to pass undisturbed the period of sleep which follows. Hygienic treatment, especially such as the causes of the disease suggest, is of great importance. Under this head we would prominently mention sponging the body, and especially the head, every morning with cold water, quickly followed by rapid and thorough drying. Shower-baths do not usually agree, and bathing in the open sea is obviously dangerous. All violent emotions, excesses of every kind, and especially the precocious development or the unnatural excitation of the sexual instinct, must be strictly interdicted or prevented. Avoid all fried foods, all heavy substances in diet. An indigestible meal is very liable to produce an attack.

Regular out-of-door exercise is beneficial, but it should never

be carried too far, as fatigue often excites an attack. Epileptic patients require much rest and frequent change; boys and girls should not on any account sit at lessons for three or four consecutive hours. Studies and open-air recreations should be pleasantly blended.

Should fright, disappointment, anxiety, or other mental influences tend to keep up the disease, a thorough change is necessary, including a change of residence, companions and habits. "All ambitious intellectual exertion, especially rapid and discursive reading and writing against time, should be absolutely prohibited. But moderate employment of the thoughts, especially on familiar and interesting hobbies, is useful in preventing that stagnation or concentration of the mind upon itself which is so hurtful in all chronic complaints. Further, the mind requires exercise for its healthy growth. The diet should be almost exclusively vegetable, and taken regularly, in moderate quantities. As the appetite is often voracious, it should be judiciously controlled.

ENLARGED, OR VARICOSE VEINS (Varices).

Symptoms—The affected veins are dilated, tortuous, knotted, of a dull, leaden or purplish-blue color, with much discoloration of the parts, and some swelling of the limb. If a great many small cutaneous veins are alone affected, they present the appearance of a close network. The enlarged veins and local swelling diminish after taking the horizontal posture.

Causes—Generally, conditions which induce more or less permanent distention or enlargement of the veins. Strains, or overexertion of a part, may cause an afflux of blood into them and lead to their distention; standing occupations favor the gravitation of blood to the lower extremities; and further, the length of a vein may lead to its undue distention in consequence of the long column of blood it contains. Obstacles to the return of venous blood are such as tight garters or stays, a tumor, or the pregnant womb.

Remedies—1. The witch-hazel (*Hamamelis Virginica*), administered internally, and applied externally as a lotion, a compress, covered with oil-silk, and a well applied bandage, an elastic stocking knitted to measure and fitting closely, are often specific. Lotion: One part of the strong tincture, to six parts of water. Dose, one teaspoonful of tincture every two to four hours, according to the severity of the symptoms. This is one of the best curative means in this difficulty.

2. For the engorged or feeble state of the veins, use a wash of alum-water, or an infusion of white oak bark. When both can be procured, use them combined.

Varicose Ulcers—Their treatment is the same as that of ulcers generally, with the exception of the following directions:

Should a vein burst, excessive hemorrhage may suddenly take place, inducing fainting, or even death. The patient should be immediately placed flat on the floor, and the leg raised, when the hemorrhage generally ceases. A compress and bandage should then be applied to prevent subsequent bleeding. Excoriations or tender spots about varicose veins should have early attention, to obviate the formation of ulcers.

The suppuration or discharge, in this as in other complaints, may be checked by freely drinking of chamomile-tea. The power to control suppuration has been discovered as belonging to chamomile flowers.

Accessory Treatment—Moderate compression by accurately fitting bandages or laced stockings, so as to afford that support to the blood which the valves can no longer give, and to prevent increased distention. The pressure should be very gentle and uniform, and be applied in the morning, before the patient puts his foot to the floor, and maintained until he retires to bed. Should only a small portion of a vein be enlarged, a piece of strapping-plaster may afford the requisite support. Prolonged exercise or standing should be abstained from, and after taking moderate exercise, the limb should be raised, and maintained in a horizontal posture. Standing is more unfavorable than walking. The leg should be well washed, and rubbed quite dry every morning.

In place of the laced stocking, mentioned above, the following may be employed:

A strip of muslin, two or three inches wide, and long enough to wrap the foot and leg from the toes to the knee, or to a point above the swelling, may be used as a bandage, or means of compression. Begin at the toes, and wind round the foot and leg, as tightly as can be worn without discomfort, allowing the edges of the layers to overlap each other a little. This should be removed twice a day that the ulcers may be washed and dressed.

ERYSIPELAS (St. Anthony's Fire).

Causes—Exposure to cold; impaired digestion; wounds, particularly from dissecting and surgical instruments; badly ventilated and over-crowded apartments; certain conditions of the atmosphere; and a morbid state of the blood from disease, the habitual use of stimulants, etc., and consequent debility. The tendency of this disease to attack different parts simultaneously furnishes evidence of its origin in a bad condition of the blood. The chief exciting cause of erysipelas is a recent wound, and the predisposing cause is inattention to the laws of health, combined perhaps with a personal or family tendency to the disease. An incautious use of arnica we have repeatedly known to occasion an attack.

Symptoms—Erysipelas is known by a spreading, inflam-

matory redness of the skin, with considerable puffy swelling, tenderness, burning, painful tingling and tension. The color varies from a faint red to a dark red or purplish color. An attack is usually ushered in with shivering, languor, headache, nausea, bilious vomiting, and the ordinary symptoms of inflammatory fever. When erysipelas attacks the face, it nearly always commences at the side of the nose near the angle of the eye.

Baking Soda Will Cure Erysipelas.—*It is unnecessary to go outside of the kitchen to obtain a remedy that will cure Erysipelas without fail. David Seymour, M. D., of Chicago, after becoming very dangerously ill, was induced to try this remedy. The disease had spread over nearly all his head and down on his breast. His life was despaired of; his attendant physicians could do nothing for him. In two or three days after commencing to use the remedy he was up, and in a few days he was well.* The remedy is common baking soda. The mode of using the soda is to place a layer about twice the thickness of a knife blade between the folds of a thin cotton cloth moistened with water until almost wet, and apply all over the affected parts, occasionally renewing the application.

2. To one gill of brandy, add the juice of two lemons. Keep the affected parts well moistened with this until the inflammation is allayed. The administration of this remedy has been attended with marked success in the treatment of this disease.

3. A simple poultice made of raw cranberries pounded fine, and applied in a raw state, has proved to be an effective remedy.

4. Dr. M. Curtis of Oakland, Cal., gives the following simple application: Mix corn-meal with bay rum; apply in the form of a poultice, and change as often as it becomes dry. Continue the use of this application until the disease is relieved. He says: "This is the best remedy I have found in my practice."

5. Dissolve a tablespoonful of sulphate of soda in a pint of hot water, and apply on cloth constantly to the part. I have used this with the best of success in my practice.—*Dr. Watson.*

6. When Erysipelas arises from a wound, carrots boiled, mashed, and applied hot, is one of the best external remedies in use. A fresh poultice should be applied three or four times a day, until the inflammation is allayed.

7. *Ordinary white navy beans are a sovereign remedy for erysipelas, and are all that is required to effect a cure. As simple as this remedy appears, if used properly, it will always control this distressing disease. A presiding elder of the M. E. Church at Monmouth, Ill., after doctoring with three physicians without avail, was cured in a few days with this remedy. He recommended it to others, who were likewise cured.* For directions see page 694.

Diet—The diet should be light, nothing more than gruel, rice, toasted bread and crackers, until the fever has abated and there is a return of appetite, when it may be gradually made more nourishing. In a malignant attack, if the vital forces seem to be giving away, it may be necessary to resort to beef-tea or mutton-broth.

Sweets, as preserves, candies, etc., raw fruits and vegetables, fish, veal broths, lemonade or other causes of acidity, should not be

used. Milk is an improper article in all erysipelous cases, owing to the existing disposition of the stomach to acidity.

SORE EYES, OR INFLAMMATION OF THE EYES.

The most common causes of sore eyes are external injuries, such as blows, bruises or other wounds on or about the eye; foreign bodies getting under the eye-lids; some of the eye-lashes growing too near the inner edges of the lids, or the ends turning inward and irritating the eyes; exposure to cold; intemperance in drinking, reading or performing any kind of work requiring close attention of the eyes by candle-light. It also occasionally takes place from contagion, and often prevails as an epidemic.

Inflammation of the eyes often comes on with a sensation as if sand had got into the eye. In some instances this complaint proceeds no further, but gradually goes off. But at other times it is followed by heat, redness and pricking, with darting pains.

Remedies—1. The juice of the common grape-vine, used as an eye-water, two or three times a day, is one of the best remedies in use for some forms of sore eyes.

2. **Chronic Sore Eyes**—The *malva*, or cheese-weed, is very effectual, and has often cured when all other means had failed. The green herb is to be pounded thoroughly, and then applied in the form of a poultice.

3. Take three tablespoonfuls of fresh lard and one of white precipitate; rub them into a salve. Apply it on the outside of the lid of the eye, three times a day. This has cured, even after the lashes had disappeared in consequence of disease.

4. A poultice, of ground flax-seed or slippery-elm bark, as many people know, is an admirable remedy in this complaint. Use the fresh bark when it can be obtained.

5. Those who have used the following simple remedy, recommend it very highly: When the eyes are inflamed and weak, break and pour out an egg, from the shell, and the last drops from the shell drop into the eye, and repeat three times a day. In two or three days, the inflammation will subside, and the eyes will become strong.

Granulated Sore Eyes—*Salts is a sure and speedy cure for this affliction. A Miss Carrie Barnes of New Orleans, after expending over* $1,800 *in traveling and treatment in different cities, was cured with this remedy.* Immediately upon commencing the use of it, she was told that she could resume her studies in school. She did so and was well in a fortnight.

It is used as follows: Dissolve a tablespoonful of salts (Rochelle salts has been specially recommended) in a washbowl half full of water. Bathe the eye in it, and at the same time fill a tumbler brimful of the solution and hold the eye in it, opening and shutting it frequently. A few attempts will render this task easy. Repeat this operation three or four times daily.

In diseases of the eye, as well as in many others, it is often necessary to administer a variety of remedies. For what will cure one case, will not always do as much for another.

A very useful remedy, for infants especially, is tepid milk and water, equal parts. Apply to the eyes with a soft linen or cotton cloth, four or five times a day.

The following is given on the authority of Dr. Beach:

"I have cured blindness of one or two years' standing, when the disease has depended on inflammation. I have merely ordered the feet to be bathed every night, or every other night, for a great length of time, and this treatment has recalled the blood from the head to the feet and surface, which, of course, lessens the pain and inflammation of the head."

Chronic Inflammation of the Lids—Mr. Campbell, of Mississippi, sends us the following chapter in his domestic experience, which we give precisely as he furnished it to us, without the alteration of a word or phrase:

"My little boy, ten years of age, had been troubled from infancy with a scrofulous inflammation of the lids of the eyes, which, besides being very painful, seriously impaired his sight. The lashes all fell out, and the margins of the lids were swollen and constantly covered with ulcerous sores. I had in vain placed him for years under the care of the most eminent physicians; he continually grew worse. There was finally recommended to me an 'old woman's' remedy, which I tried, and which has wrought a perfect cure. I send it to you for the benefit of any other similar sufferer:

"Put a peck of poke-root in ten gallons of water, and boil down to one gallon. Then strain out the pulp, add nine gallons more of water, and again boil down to one gallon. Place in a cellar, or any other cool place, where it is not likely to sour, and give, of this decoction, one-third teacupful, morning and night. Before the medicine is exhausted, the cure will be effected, if it works in other cases as in mine. Of course, the evaporation by boiling of the nineteen gallons of water, is for the simple purpose of neutralizing, or weakening, by evaporation, the poisonous properties of the poke-root."

To Remove Films From the Eye—When films first begin to form on the eye, they can often be removed by hen's oil. Apply it, three times a day to the film, with a camel's hair pencil. Then hold away the lids for a short time, with the thumb and forefinger. But you will have a still surer and better preparation by bruising and stewing a quantity of wintergreen leaves in the hen's oil, enough to make it strong of the wintergreen; then strain before applying.

The following is also highly recommended. To one-half pint of lime-water, add one-fourth ounce of verdigris; steep for an hour; strain and bottle tightly for use. Touch the film over the pupil, or

speck, with a brush, as before directed. Sometimes it will require two months to effect the cure.

A New Remedy for Sore Eyes—Raw beef's liver has recently proved to be the best known remedy for desperate cases of sore eyes. General Buell states that he was afflicted with sore eyes; finally he became totally blind, and so remained for eight months. While thus afflicted he was treated by the best oculists in the United States—two of them residents of New York City—but all to no effect. After they pronounced his case incurable, he went to Austin, Texas, where an old lady cured him with raw beef's liver in fifteen days. It was bound on the eyes when going to bed at night.

Trachoma (Granulated Eyelids)—A chronic, contagious disease of the eyelids characterized by the formation of granulated tissue affecting particularly the upper lid. It is often accompanied by a vascular growth of the cornea. It occurs in poorly nourished persons who are subjects of improper hygiene.

Treatment—1. Consists in bathing the eye every two hours with boric acid solution, or cold compresses.

2. Red Precipitate Ointment rubbed into the roots of the eyelashes when lids are closed, on retiring to rest. This may be repeated every night until no longer required.

PROSTATITIS

Prostatitis, or inflammation of the prostate gland. This gland surrounds the posterior part of the urethra, and becomes involved when the posterior urethra becomes inflamed. The indications are pain and pressure in front of the rectum, frequency of urination, and pain on evacuation of the bowels. The feces in many cases come out in the form of narrow tape. With this condition there is a certain amount of fever, and if the gland becomes inflamed very quickly there may be a high fever with chills. In this latter case there is abscess formation. This is treated by hot injections into the rectum, poultices to the space in front of the rectum, and hot baths taken three times a day.

Remedy—Tincture of Iodine and tincture of Belladonna, equal parts, should be applied to the perineum region once daily. Massage of the prostate may be practiced with good results. Cold applications or a jet of cold water should be directed against the perineum twice daily.

DIVISION FOUR.

GENERAL DISEASES CONTINUED—FEVERS.

TYPHUS, OR NERVOUS FEVER.

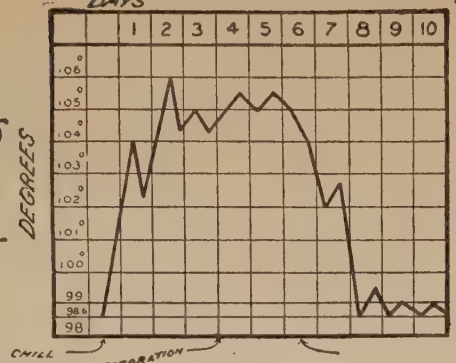
The slow or nervous fever is distinguished from other kinds of fever by its effects on the nervous system. It is a peculiar form of fever, which may be spread by contagion, characterized by a torpid state of the brain or great lethargy, with great prostration of muscular power, and more or less delirium. It principally attacks those of a weakly constitution, and is generated in jails, hospitals, prison-ships and illy-ventilated apartments of the poor, and in damp, dirty cellars, in cities and large towns. In a number of persons exposed to the contagion of typhus, some, although rarely, are attacked on the third or fourth day; others on the thirteenth; and some not under three months; but the most common period of an attack after an exposure is, from the end of the first week to the middle of the third.

Causes—Typhus fever may be produced by whatever depresses the spirits or impoverishes the blood; by certain passions, watching, intense study, the use of poor diet or unripe fruits of any description, moist, close or impure air. Hence it is more prevalent in wet weather, and proves most fatal to those who live in small, filthy houses, narrow and dirty streets, hospitals, jails, and manufacturing or large towns. It generally attacks those who lead an irregular and licentious life, or whose constitutions have been broken from free indulgence in exhausting excesses. It is occasioned by sudden transition from heat to cold, getting the feet or clothes wet, lying upon damp ground, great fatigue or bodily exercise. These are all predisposing causes; but the most frequent of all is infection or contagion communicated through the medium of an impure or heated air, by concentrated noxious effluvia arising from the body of a person laboring under the disease; and although it may not be contagious in the commencement, or under proper regulations, yet it may become so from the want of ventilation, treatment, etc. Other fevers, as before intimated, sometimes degenerate into typhus. This fever occurs sometimes in warm climates, but more generally in those that are cold and temperate; often in cold, wet autumns.

CHARTS OF VARIOUS DISEASES

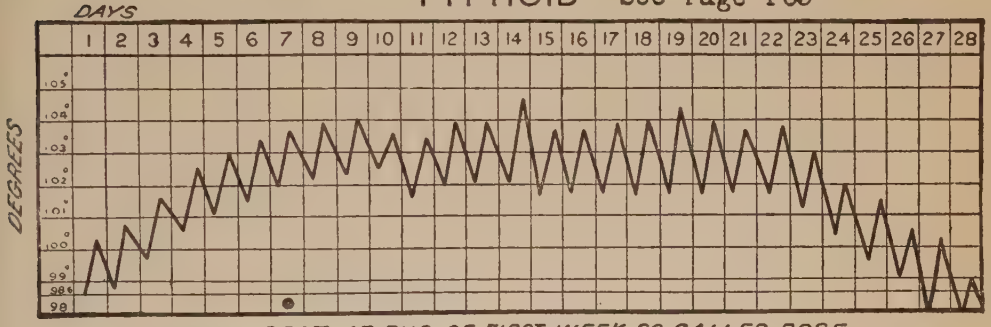
SHOWING THE RISE AND FALL OF TEMPERATURE OF PATIENTS.

PNEUMONIA. See Page 259



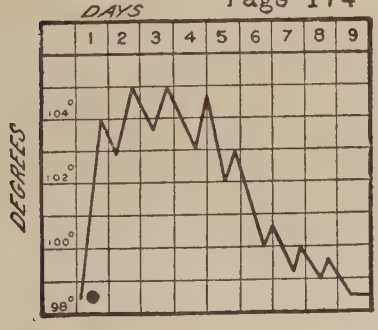
THE TIME ERUPTION APPEARS IS SHOWN BY THE BLACK SPOTS

TYPHOID See Page 163

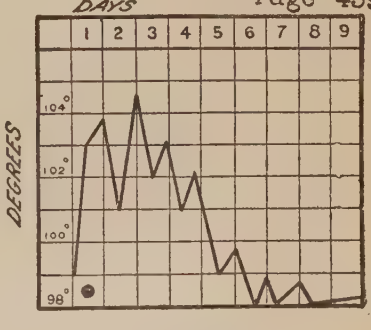


● = BLACK SPOT AT END OF FIRST WEEK SO CALLED ROSE-SPOTS — FAIRLY MODERATELY SEVERE CASE WITH COMPLICATIONS.

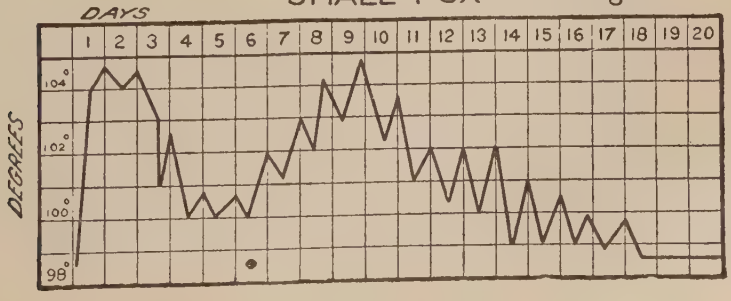
Scarlet fever Page 174



Measles. Page 439



SMALL-POX See Page 277



Symptoms—Typhus fever usually commences with a great degree of mildness in all its symptoms. It is generally preceded by slight indisposition for several days, succeeded by rigors or chills, debility, sighing and oppression in breathing, with nausea and loss of appetite; with a certain unpleasant, uneasy sensation in the pit of the stomach. The countenance is pale and dejected, the eyes are dull and heavy, and there are often tremor of the extremities and a sense of weariness, both mental and corporeal. Towards evening there is some increase of these symptoms. In the course of a few days, as the disease progresses, there are oppression in the chest, pain in the head, giddiness, lassitude, want of strength, weariness, mental powers slow to act, confusion of ideas, confusion of intellect and great depression of nervous energy. There is sometimes a sinking or fainting, particularly when the patient attempts to sit up; the tongue is dry, at first white, and afterwards coated with a dark-brown fur; also the teeth are incrusted with the same, yet the patient seldom complains of thirst. There is a small, low, frequent and irregular pulse; a cold, unnatural and clammy perspiration breaks out upon the backs of the hands, while the inside of them is hot; the skin is dry and constricted, and all the excretions diminish; the bowels are usually costive; the intellect grows more confused; the patient becomes fretful, restless and watchful; the countenance more anxious and dejected; urine scanty and high-colored, sometimes there are catarrhal symptoms, with a short, dry cough; there is pain in the back, loins and extremities, with a sense of soreness over the whole body; sleep disturbed and unrefreshing; the functions of the brain become more and more disordered; there is more or less deafness; delirium approaches; indeed, body and mind seem, as it were, almost paralyzed. The patient has a great aversion to exercise, as well as to conversation. This stage of excitement generally continues about a week, when it terminates in a stage of prostration or great debility. The inflammatory symptoms subside, and a great weakness and sinking ensue. The body emaciates rapidly, and if the disease is suffered to progress, it daily assumes more formidable and unfavorable symptoms; there is a fluttering, very weak and intermitting pulse, with startings of the tendons, hiccoughs, etc. There are also, in violent cases, some eruptions on the surface, a peculiar hollow sound of the voice, and a swelling and tenderness of the bowels. The later stages of fever are also attended with diarrhea, the discharges being very offensive, watery and acrid. There is also, generally, so much lethargy that it is with difficulty the patient can be aroused.

There is sometimes one very prominent symptom in this complaint; this is, a very unequal circulation of the blood. It is common for the temperature of one part of the body to be about natural, while another part is unnatural. Again, it is very remarkable that, in the middle and latter stages of the complaint, the whole force of

the disease is apparently withdrawn from every other part, except the nervous system.

This fever frequently continues for some weeks, and terminates in such a state of prostration as to prove fatal; or, it degenerates into a malignant type; but when it terminates favorably, it generally subsides about the fourteenth or fifteenth day, by diarrhea, or by perspiration, diffused over the whole body. It often, however, continues thirty or forty days, and finally subsides without any evident crisis.

The symptoms of typhus fever may be summed up in a few paragraphs.

1. Great prostration of strength.

2. Great alteration in the blood and other fluids of the system.

3. A morbid state of the digestive organs, occuring as *secondary* symptoms and not as *primary*.

4. Agitation, anxiety, loss of sleep and delirium; spasms in various parts of the body; respiration hurried, sometimes with cough and bloody expectorations; lips dry and parched; gums red and dry and covered with mucus; teeth crusted; tongue generally swelled and stiff; great lethargy; quick, small and irregular pulse; thirst, nausea and vomiting. The passages from the bowels are very unhealthy, have a bad odor and are sometimes bloody; there is flatulence and sometimes swelling of the abdomen.

Remedies—It is a question whether typhus can ever be cut short, or the definite course of the disease altered by the administration of remedies. Some contend that it may be broken up in the first stage; others believe that the disease must have its course. However, our experience amply proves that in the great majority of cases the violence of the symptoms can be held in check, its severity very much mitigated, the patient's comfort greatly promoted and convalescence hastened, by judicious treatment.

1. The oil of turpentine has long been a favorite form of treatment in this disease, particularly when the tongue is dry and the abdomen is swollen by the presence of gas. A good mode of administering it is, to add one teaspoonful to a half-teacupful of gum-Arabic water, and of this give one teaspoonful every four hours. It should be sweetened with loaf or white sugar.

2. When nervous symptoms appear, give the following: Infuse one ounce each of chamomile-flowers and lady's slipper in one pint of water, and give to the patient two teaspoonfuls every three or four hours, increasing the dose if necessary.

3. The best results are claimed, and would appear to follow, in the latter stages, from the use of some of the mineral acids, for instance say elixir-vitriol, most especially is this indicated if the sweating is profuse, add ten drops of this to half a tumblerful of water, and of this give one teaspoonful at a dose, and repeat every four hours. If the acids mentioned can not be obtained, take a pint

of hard cider and let the patient drink a wineglassful every two hours until the whole is taken. After the lapse of a few hours take another pint in the same manner.

When putrid symptoms appear, such as foul breath and fetid discharges, offensive perspiration and general sinking of the vital powers, give a tablespoonful of yeast mixed with a teaspoonful to pulverized charcoal every hour or two throughout the day.

If, from any cause, the yeast is not given, charcoal may be used in an infusion, made by steeping three ounces of elm-bark and half an ounce of wild-indigo root, in four pints of water. Of this, two tablespoonfuls, with a teaspoonful of the charcoal added, are a dose.

Accessory Treatment—A most powerful and valuable remedy is bathing in cold water. If the water is hard add to it a little borax or washing soda. The earlier it is used the better; but, in advanced stages, sponging the body will be safer. Both modes are refreshing to the patient, and generally cause an abatement of fever. Bathing with cold water may be practiced at any hour of the day, when there is no sense of chilliness, or when the heat of the body is unnaturally great. When the fever is high, a wet sheet pack is the best way to reduce it. Wring a sheet out of cold water, and wrap the patient up in it. Repeat this twice or three times a day.

During the cold stage, while there is much sense of chilliness, or if there is much perspiration, avoid the cold bath, for it is dangerous. In some cases, where the delicacy of the system forbids the use of cold water, a tepid bath may be substituted. Affections of the brain, attended by stupor and delirium, will generally be relieved by often bathing the temples with cold vinegar and water, laying cold pledges upon the forehead; ice bladders may be used if convenient.

Should there be any unusual coldness in the lower extremities, the warm bath should be used immediately, or some warm external applications, as mustard plasters, etc., in order to restore the circulation. The bath will be improved in such cases, by throwing in salt freely, and the patient should remain in it till his skin becomes warm. After this he should be rubbed dry, and warmed flannels and bottles of hot water should be applied to his feet, legs and under the arm-pits.

When sleep has been disturbed by a disordered nervous system, or jerking of the nerves, three grains of camphor, dissolved in a wineglassful of water, is an admirable remedy. This dose may be given every two hours, until the spirits are composed and sleep induced.

If the patient has diarrhea, lime-water is a good remedy, so also is blackberry tea.

The points of greatest importance may be briefly summed up as follows: The patient should be placed in a large, or at least in a well-ventilated room, so as to secure a continuous and ample supply of fresh air. Cases occurring in close, crowded rooms, in which

this prime hygienic condition cannot be secured, should be removed to a suitable place. There should be frequent changes of personal and bed-linen, and changes of posture to avoid congestion and bed-sores. Directly there is the least indication of a bed-sore, the part should be coated over with a layer of flexible collodion or soft mutton tallow. Food or beverages should be given in small quantities at regular and frequent intervals, including water, milk and water, tea, broth and beef-tea. It is extremely important that, from the first, nourishment should be given regularly and persistently. The tendency to death is by asthenia, or weakness; and, keeping that in mind, the patient should be frequently supplied with small quantities of very nutritious food. In some cases in which the patients obstinately refuse all food, or are unable to swallow, life is often saved by nutritious or stimulating injections. Quiet should be secured in noisy streets, by stuffing the ears with cotton-wool; cleanliness; sponging the whole surface of the body and carefully drying at least once a day, and intelligent and unremitting watching. There are some simple remedies, in this disease, that doubtless do good, but the destruction of human life that has taken place in consequence of strong medicine administered, makes it apparent that it would have been better had none been given.

Proper Nursing is the "saving ordinance" in typhus fever; but it is not such nursing as is usually given to patients by the would-be nurses who assume the management of them. Then let the nurse be one who is true, well-tried, and who *properly understands* the business and above all has good common sense and the nerve to apply it in practice.

Diet—The diet, when the fever begins to decline, should be nutritious. The first precaution is to separate the sick from the healthy, and thus cut off the intercourse between them. Purify both beds and the clothes from every particle of filth; the chambers must be often fumigated with good, sharp vinegar, or the burning of tar. Use every possible and practical means to disenfect and destroy the odors which doubtless carry in them the poisonous infectious germs which are certain to convey the contagion to others.

On the first appearance of typhus, or any infectious disorder, great cleanliness should be observed, the rooms should be freely ventilated, and the floors washed frequently with strong soapsuds and wiped as dry as possible.

As a purifier, the chloride of lime is among the best, and may be bought at any drug store.

Preventives—As disinfectants, fresh air, efficient ventilation, and cleanliness are of paramount importance. Use as additional means for avoiding contagion, but by no means as substitutes, whitewashing with quick-lime, washing the wood-work with soap and water, re-papering infected rooms, cleansing the linen in water to which chloride of lime has been added, and the use of carbolic acid in the water employed in sponging the patient—five drops of pure

acid to a quart of water. Without cleanliness and fresh air, vinegar, camphor and other so-called preventatives are useless, and only disguise noxious vapors. Persons in attendance on the sick should especially avoid the breath and exhalations which arise on turning down the bed-clothes, as there is reason to believe that the poison of typhus is mainly thrown off by the lungs and the skin.

TYPHOID FEVER.

This fever generally commences more gradually, is slower in progress and longer in duration than typhus. In the former, the bowels are constipated; but in the latter there is disposition to diarrhea, with soreness in the bowels on the left side of the abdomen, though these are not always present. Diarrhea may precede the fever symptoms, begin with them, or set in during the latter stage of the disease. The common duration of typhoid fever is about ten days, though it may last fourteen, or linger through four or five weeks, if not arrested by proper treatment.

Symptoms—This disease often comes on with a chill, followed by fever, though it sometimes comes on so gradually and insidiously that it is hard to fix the exact time of its beginning. The patient feels weary, has a slight but ever increasing headache, soreness of the limbs, and is generally indisposed to muscular exertion. The body is hot and the extremities cool. If the attack is severe, there are painful headache, deafness, delirium, cold extremities, burning heat of the body, frequent and small pulse and, during the later stages, dry tongue, filthy sordes accumulate on the teeth, offensive breath and twitching of the tendons. There is the same tendency to hemorrhage from the nasal structure, the mouth, throat and anus—any epithelial surface—as in typhus fever. Inflammation of the air passages often occasions a troublesome cough, and a similar irritation of the stomach causes vomiting. For the symptoms which indicate a fatal tendency, see "Typhus Fever."

Causes—The predisposing causes of this fever are all those things which greatly depress the vital powers of the system; and we might say, truly, that no one can have it in its primary form, unless he is of naturally feeble vitality, or under the powerful influence of some cause that produces great depression at or immediately preceding the time of exposure. If any cause, acting upon the system, is very intense, the disease may be rapidly developed. Animal matter, in a state of decomposition, is one of the principal exciting causes. Prof. Liebig says: "An animal substance in the act of decomposition, or a substance generated from the component parts of a living body by disease, communicates its own condition to all parts of the system capable of entering into the same state, if no cause exists in these parts by which the change is counteracted or destroyed. Leachings of human excrement may also be regarded as

a prolific source of cause; leachings from the privy vault or stable, water taken from streams polluted by sewage, are also truly claimed as causes."

This fever may be epidemic, and the condition of the atmosphere, as to moisture and temperature, will determine the rate of its propagation. That the disease is contagious, in certain conditions, few will deny. From a person in low, typhoid fever, there is constantly given off, both in the excretions and from the lungs, matter in a state of decomposition; and if proper attention be not paid to ventilation and cleanliness, this matter will give rise to the same form of fever in all who come within their reach and are predisposed to disease.

There are still other causes, such as *surface-wells* which are supplied with water filtered through cess-pools or adjacent churchyards, the nitrates of the soil imparting to the water deceptive, sparkling and pleasant qualities; the connecting of drinking-water cisterns with *water-closet pipe,* or the sewer by a *water-pipe,* which also serves as an air-shaft by which the sewer gases rise into, and are dissolved by, the water which we are about to drink; *the pollution of the air of our houses* by sewerage products through openings delusively "trapped," or rather untrapped, which "trap" the poisons in the house and bodies of those who dwell therein, but which pour their gases slowly into our chambers, which, by the rarefaction of the atmosphere, in winter especially, suck them in with great force. Extra fires and lights in the winter season, when outer doors and windows are closed, form a sort of a pump, lessening the pressure upon the water-traps or the house drain, and bring up the products of decomposition from the sewers. We too readily take for granted that the traps are air-tight and do not allow the gases to find ingress to our apartments. How long will our law makers permit poor humanity to suffer sickness and death, ere sanitary regulations will be made, enforcing a proper observance of health rules in house building?

DIFFERENCES BETWEEN TYPHUS AND TYPHOID FEVER.

TYPHOID.	TYPHUS.
1. Age, generally from eighteen to thirty-five.	1. At all ages, often in persons beyond middle life.
2. Not directly contagious; often sporadic.	2. Highly contagious; generally epidemic.
3. Attack insidious, slow and almost imperceptible.	3. Attack generally sudden; no lengthened proclamation (or foreshadowed).

4. Duration may be three weeks, often longer.	4. Duration; often not beyond the second week.
5. Death seldom before the end of the second week, more generally after the third week.	5. Death not unfrequent during the first week, often during the second.
6. Brain symptoms come on gradually.	6. Delirium or decided stupor appears soon, sometimes at the outset; existing headache disappears from ninth to tenth day.
7. Great emaciation.	7. Less emaciation; great prostration.
8. Face pale; if flushed, confined to cheeks.	8. Face deeply flushed of purplish hue; eyes injected.
9. Skin hot; sometimes covered with acid perspiration.	9. Skin of pungent heat; sometimes emitting an ammoniacal odor.
10. Abdominal symptoms; such as diarrhea, tympanites; intestinal hemorrhage not unusual.	10. No abdominal symptoms; bowels constipated; no intestinal hemorrhage; sometimes acute dysentery during convalescence.
11. Epistaxis (nose bleed) common.	11. No expistaxis.
12. Bronchial symptoms; sometimes pleurisy.	12. Pneumonia or marked congestion of the lungs.
13. Eruption, light red, and not on extremities.	13. Eruptions darker and all over the body.
14. The evening temperature is mostly higher than that of the morning.	14. The evening temperature is lower frequently than that of the morning.
15. A high temperature is frequently accompanied by a slightly accelerated pulse—occasionally it is slower than normal.	15. The rule is a high temperature, a high pulse.

Remedies—Wild indigo (*Baptisia Tinctoria*) has given excellent results in this disease; and it is especially effective when there is foulness of the tongue. Infuse the bark of the root, for half an hour, in warm water, and give one tablespoonful every four hours. Of the tincture, five drops may be added to four tablespoonfuls of water, and given in teaspoonful doses, every two hours.

In speaking of this remedy, Prof. J. M. Scudder, one of the leading lights of the United States, in the Eclectic Medical School, says, "It will cure typhoid fever, typhoid dysentery, typhoid pneumonia, typhoid sore throat, typho-malarial fever, or, indeed, typhoid anything."

Yeast has been employed in this disease, and with good success.

It is prepared for use in the following manner: To half a pint, add one teacupful of mucilage, made by putting one teaspoonful of gum-Arabic or of flax-seed in a teacupful of water, together with thirty or forty drops of the spirits of camphor. Mix well, and give in tablespoonful doses, every four hours. This will arrest the tendency to putrefaction, or disease of the contents of the bowels, and the consequent symptoms of black tongue, and of small putrid spots on the surface of the skin—these being more effectually removed by it than by any other means.

As to purgatives, they are seldom required, and should there be accumulation in the bowels, it will be the better plan to remove them by injections; for, from the great tendency to diarrhea, from the use of physic, it will be safer to risk the drawbacks which may arise from intestinal accumulations than to cause purgation.

For the diarrhea, which is apt to supervene in typhoid fever, the juice of ripe blackberries, given in doses of three or four tablespoonfuls, every three or four hours, is very effective. If there is hemorrhage of the bowels, which is apt to occur the third week, oil of erigeron in three drop doses every two hours, until five doses are taken, and an injection of charcoal and water will check it.

For the pain and swelling of the abdomen, fomentations of hops, lobelia or tansy should be applied over the abdomen, frequently renewing them, not permitting them to remain on when cool, and they should not be made so wet as to dampen the bed. Oil of turpentine added to them, a teaspoonful or two, will be found very advantageous in many instances. These fomentations must be continued until pressure can be made upon the parts without causing pain or tenderness, or until the stage of prostration comes on, when they must be dispensed with.

The patient should never be allowed to stool or urinate in the erect position, as long as there is any inflammation or pain or tension of the bowels; a bed-pan must be made use of for these purposes.

Accessory Treatment—Strong medicine has slain its *thousands* in this disease; but there are some simple remedies that, when properly administered, are effective; yet the great dependence should be in the accessory treatment, and in proper nursing.

The patient should, if possible, be placed in a large, well-ventilated apartment, provided with a window, door and fireplace, so contrived as to allow of an uninterrupted admission of fresh air and free escape of tainted air. A blazing fire also assists ventilation. The room should be divested of carpets, bed-hangings, and all unnecessary furniture. A second bed or convenient couch should be provided, so that, by removing the patient to it for a few hours every day, the fever-atmosphere around his body may be changed. The light from the window may be subdued, and noise and unnecessary talking forbidden.

The patient should be but little disturbed, and enjoy complete physical and mental rest during the whole course of the disease.

The body and bed-linen, including the blankets, should be changed daily, and all matters discharged from the patient immediately removed. The mouth should be frequently wiped out with a soft, wet towel, to remove the impurities which gather there in severe forms of fever. The water may contain a little perfumed carbolic acid. The patient's body should be sponged over as completely as possible at suitable intervals with tepid or cold water, as may be most agreeable to his feelings, and quickly dried with a soft towel. If necessary, sponge limb by limb, to avoid fatigue. Carbolic acid may be added to the water, three or four drops of the pure acid to a quart of water. Sponging the whole surface of the body with cold or tepid, soft or "broken" water should never be omitted in fever; it reduces the excessive heat, soothes the uneasy sensations, and is indispensable in maintaining that cleanliness which is so desirable in the sick-room. Water thus applied acts as a tonic, giving tone to the relaxed capillaries, in which the morbid action goes on. Frequent washing with soap and water also tends to prevent bed-sores, by keeping the skin in a healthy condition. If bed-sores have formed, they should be protected by arnica or calendula-plaster, or mutton tallow, which may be had at drug stores.

As soon as it is determined that the patient has the typhoid fever, the hair should be shingled.

During the early course of the fever, the wet pack is an invaluable application, and tends to give a mild character to the disease, when properly administered.

Beverages—At the commencement of the fever, pure water, toast-and-water, gum-water slightly sweetened (one ounce of gum-Arabic, half an ounce of loaf-sugar, one pint of hot water), barley-water, lemonade or soda-water, is nearly all that is necessary. Cold water is an agent of supreme importance. It lowers the excessive temperature, and proves a valuable adjunct to the medicines prescribed.

Patients are often unable to swallow or relish nourishment in consequence of the dry and parched state of the tongue, when it will be found necessary to soften the mucous lining by putting a little lemon-juice and water, or other acceptable fluid, into the mouth a few minutes before food is taken.

A sheet is wrung out of cold water and placed on the bed. The patient is then laid on the sheet, with a proper support for his head. Each side of the sheet is then brought over the patient and tucked under the opposite side. The legs are well wrapped in, and the patient is well covered with blankets. He may remain in the pack from ten minutes to an hour. The pack may be repeated several times a day, the frequency being determined by the rise of

temperature. When taken from the pack, the patient is to be wiped dry.

An agreeable but less effectual plan is, cool sponging and having the cloths dipped in cold water and laid upon portions of the body.

When there is any tendency to collapse, wet baths should not be given. There can be no doubt of a greatly diminished mortality by the use of cold baths, the disease pursuing a milder course under their use.

If, in the use of water, the circulation becomes feeble, the skin blue or the extremities cold, bottles of hot water should be placed to the feet.

Diet—In either typhoid or typhus fever, where there is no irritation of the mucous membrane of the stomach and bowels, manifested by nausea, vomiting, diarrhea, and pain and tenderness, on pressure, over the stomach and bowels, the patient may be allowed to eat, from the commencement of the attack, regularly but moderately, of light food. If he has taken this from the beginning, then, when the stage of great prostration comes, he may, if able, be permitted to chew a little beef-steak and swallow the juice, or to take, in small quantities, beef-tea; which is made by putting the beef into a bottle, placing the bottle in boiling water, and keeping it there until the heat extracts the juice, which makes the tea, and which may be seasoned to the patient's taste. But, if the prostration is not very great, it is better, perhaps, not to resort to animal nourishment until the fever has entirely subsided. In *all cases where there are nausea and vomiting, with diarrhea, and tenderness over the right side of the lower abdomen,* no nourishment should be taken except in a liquid form, and that of the lightest articles of food, such as rice-water, toast-water, etc. Solid or animal food should not be given, in such cases, until the fever has passed off for three or four days, and the patient has a good appetite. This stage of nourishment should be reached gradually, by making the liquid diet, every day, a little more substantial. You will lose nothing by being so careful, as the patient will improve steadily, and even rapidly, after the fever leaves him, without solid food. Fatal relapses often follow, when animal or other substantial food is given too soon, and sufficient variety and sustenance can be obtained without any such dangerous risk.

Of course, as far as possible, the patient should have around him only those who are needed to take care of him.

In reference to milk, Dr. Hall says, "In typhoid fever it promotes sleep, checks diarrhea, cools the body, nourishes the system, wards off delirium and prepares the way for cure. It will remain on the stomach sometimes when nothing else will."

Fruit, as a general rule, should not be given in this disease.

Purifying the Atmosphere of the Room—The generation of ozone (active oxygen) constantly in the sick-room, is very

beneficial. This is best done by a mixture of two parts of permanganate of potash and three parts strong sulphuric acid in a broad, open vessel. An invigorating quality is imparted to the atmosphere of the room, and is especially beneficial when, for any reason, the room cannot be freely open. Dry scales of iodine, in a chip-basket, hung over the bed, and placed in saucers in different parts of the room, are valuable in removing any unpleasant odor in the atmosphere.

Disinfectants—An available disinfectant is carbolic acid; a few drops may be put on wetted cloths which are hung up in the room. The floor may be occasionally sprinkled with Labarraque's Solution *(chlorinated soda)*.

Coffee, dried and pulverized, and a little of it sprinkled upon a hot shovel will, in a few minutes, clear a room of all impure effluvia, and especially of an animal character.

To purify the air from noxious effluvia in sick-rooms, not of a contagious character, simply slice three or four onions, place them upon a plate upon the floor, changing them three or four times in the twenty-four hours.

Moderation in Food—A distinguished physician observes, "Food should only be allowed in great moderation, and never to the capacity of the appetite, till the tongue is quite clean and moist, and the temperature, pulse and skin have become natural. In typhoid fever, and in other conditions in which the bowels have been inflamed, this caution is especially necessary during convalescence. Solid food should not be given till the temperature of the patient in the morning and evening has remained, at least for two days, at about the natural point—98-99° F."

To determine the temperature of the body, place the bulb of the thermometer in the armpit, in the groin, or in the mouth.

The tongue may be moist and clean, and the appetite vigorous, but the ulcers yet unhealed. If the thermometer shows an evening temperature of about 101° F., with a morning temperature one or two degrees lower, solid meat might be sufficient to induce fresh irritation of the unhealed ulcer, fatal hemorrhage, or perforation. Not until the evening temperature has remained, for at least two successive days, below 99° F., can we be certain that the ulcers have healed, and that solid food may be allowed without risk.

Change of Air—The salutary influence of change of climate and scene to persons who have suffered from a serious attack of fever can scarcely be over-estimated; and if the place or climate be intelligently chosen, the happiest results may be anticipated. After recovery from a serious attack of fever, the whole man becomes changed, and there seems to be a renewal of youth. Nothing gives such a beneficial direction to this change, or renders it so perfect, as a temporary removal to a suitable climate and locality. We fully endorse Dr. Aitken's statement: *No man can be considered as fit*

for work for three or four months after an attack of severe typhoid fever.

Precautionary Measures—To check the contagion: All discharges from fever-patients should be received on their issue from the body into vessels containing a concentrated solution of chloride of zinc. All tainted bed or body-linen should immediately on its removal be placed in water strongly impregnated with the same agent. The water-closet should be flooded several times a day with a strong solution of chloride of zinc, and some chloride of lime should also be placed there, to serve as a source of chlorine in the gaseous form. So long as fever lasts, the water-closets should only be used as receptacles for the discharges from the sick, and disinfected as directed above.

Prevention—Architects and builders should provide for the ventilation of every house-sewer, by a pipe running up sufficiently high, so as to prevent injury to the occupants of the upper stories. Where the waste-pipe communicates with the drains, sewer-emanations are absorbed by the water in the cistern and foul air admitted into the dwelling.

The ventilation of sewers thus becomes a matter of great importance, for, on account of the lightness of sewage-gas, dangerous results have been shown to arise where sewers and drains are merely trapped, if provision has not been made for its escape at the highest outside elevation. In some cases the sewers and house-drains have been found in good order and properly trapped; the water, also, was pure; the source of mischief being in the absence of outside ventilation for the house-drains. It cannot be too forcibly impressed upon architects and builders that sewage-traps are useless when the gas has reached a certain pressure, for it will force them. But with proper, free, open, outside ventilation, the communicating house-drains can never store in them as much sewer-gas as will suffice to force a properly made trap.

As to the regular flushing of drains which has been recommended, Mr. Chadwick writes, "Those who talk of drains or sewers being good which require to be regularly flushed do not know what good drainage is. Good tubular sewers or drains should be so constructed that the water will run off and thus be self-cleansing, and be always clear of deposit."

There is an important fact connected with drainage pointed out very clearly and forcibly by Mr. Chadwick to the Council of the Society of Arts, viz., that fresh, human excretions are not innocuous or harmless. Noxious decomposition begins in about four days in the sewer-tank. Then it is, and there it is, in the distant tank or sewer of deposit, that danger arises. Stagnant sewage is putrid, and kills fish; whereas fresh sewage from self-cleansing drains and sewers discharged into rivers, feeds them and augments their numbers. Hence the most effectual course is not to combat with the gases when produced, but to prevent their production—to prevent

ine poison-pits and the need of the various materials and services for guarding against them.

REMITTENT OR BILIOUS FEVER.

By remittent is understood a fever that abates, but does not go off entirely before a fresh attack ensues; or, in other words, where one paroxysm succeeds the other so quickly that the patient is never without some degree of fever.

This fever is principally induced by the effluvia arising from marshes and stagnant waters. In warm climates, where great heat and moisture rapidly succeed each other, remittent fevers often appear under a highly aggravated form. It appears most apt to attack persons of a relaxed habit, those who undergo great fatigue, breathe an impure air, and make use of poor and unwholesome diet.

Remittent fever generally comes on with a sense of languor, attended by sighing, yawning, and alternate fits of heat and cold. The patient then experiences severe pains in the head and back, intense heat over the whole body, with thirst; the tongue is white; the eyes and skin often appear yellow; nausea and vomiting of bilious matter, with a frequent, small pulse.

After the continuance of these symptoms for a while, the fever abates or goes imperfectly off by a gentle moisture diffused partially over the body, but returns again in a few hours.

It often, however, appears in a more aggravated form. The fever runs much higher, the face is greatly flushed, the thirst excessive, the tongue is covered with a dark brown fur, breathing is laborious; the pulse is quick and tremulous. After a while another short or imperfect remission takes place, but the symptoms again return with redoubled violence, and at length destroy the patient.

Remedies—1. A very important treatment in this disease, and one which will often arrest it in its first stage, is the following: Take a common-sized tumbler two-thirds full of cold water, and add to it ten drops of the tincture of aconite-root; give a teaspoonful every half-hour when the fever is highest, and every hour during the remission.

If this treatment is persevered in for a few days, it will generally prove successful.

2. *From half to a wineglassful of a decoction of the root of iron-weed, taken three or four times a day is almost a certain cure for bilious fever.*

3. To prevent bilious fever from assuming the typhoid form, take a teaspoonful of prepared (willow) charcoal three times a day. It may be found in all drug-stores.

4. The following is also effective for the same purpose: Take, of the tincture of wild indigo (*Baptisia Tinctoria*), ten drops, in a tumbler two-thirds full of soft water; stir well. Dose, two tea-

spoonfuls every three or four hours for several days in succession.

5. Columbo root, as a tea, in this disease, is very valuable; it checks the vomiting so frequently an attendant upon this complaint. Put ice, if you can get it, in a bladder or ice bag over the pit of the stomach to check vomiting. If you cannot get ice a mustard poultice or cold compress will suffice.

6. An old treatment is, give quinine every two hours in three grain doses until eighteen grains are taken. On the following day repeat, and thus continue for three days.

Accessory Treatment—Quiet is essential, and any excess of noise, heat or strong light should be removed or avoided, as these tend to increase the fever. The body linen, and that of the bed, should be frequently changed; the chamber should be ventilated daily, and sprinkled with vinegar, or purified by the use of other disinfecting agents; and the discharges from the bowels of the patient should always be immediately removed. The chamber of a seriously sick person should be kept entirely free from visitors. The physician, nurse and family are the only persons who should ever be allowed to enter there. Neglect of this requisition has often brought discredit upon the physician and death to his patient.

During convalesence, great prudence must be observed in diet and exercise. The food should be light and nutritious and small in quantity. Both mental and physical exertion must be moderate, though gentle exercise in the open air may be taken as soon as strength will permit.

Bathing the Surface—Those who are unacquainted with the effects of bathing the surface cannot appreciate its value, and it therefore must by no means be neglected.

Rain or spring-water may be used for this purpose, to which sufficient lye or washing-soda has been added to render it mucilaginous, or slightly caustic to the tongue. When the heat is very great, this may be applied over the whole surface. In general it is best to apply it tepid or moderately warm, but in some cases it proves more serviceable to apply it quite cold. The manner of using it should be as follows: Place the vessel containing the liquid by the side of the patient's bed, then let an assistant or the nurse raise the clothes from the body with one hand, and with a piece of flannel or sponge, dipped in the liquid, thoroughly rub first one side of the surface, from the neck to the feet, with the other. The patient must then be turned upon the opposite side, and bathed in the same manner. This process is invariably attended with a salutary effect. It may be repeated as often as the heat of the system becomes very considerable, until a remission or partial remission takes place. This process removes the slimy, viscid and perspirable matter which is thrown upon the surface, and which assists in obstructing the pores of the skin. It removes the tension and spasm of the

capillaries by its relaxing properties. It likewise diminishes the preternatural heat by the evaporation which takes place.

This effusion has been found productive of the most decided good effects in remittent fevers. This should be employed at the height of the paroxysm, when the sensations of heat are violent, the headache severe, and the skin dry. The effects to be observed from the effusion are, an alleviation of the violent symptoms, a tendency to quiet sleep is soon induced, the skin becomes moist, and a distinct remission, frequently a decided intermission follows.

Various drinks may be given possessing diluent and diaphoretic properties, such as infusions of balm, slippery-elm bark, mint and catnip; but few articles in the whole materia medica are of more essential benefit than cold water. The parched lips, dry mouth, intolerable thirst and the great heat of the system, all call loudly for the use of this universal diluent liquid. It may be taken freely at all times, except when chills are present. Should it, however, produce any uneasiness or fullness of the stomach it must be taken in smaller quantities, and repeated oftener. There are an infinite number of cases on record where the free use of water internally and externally have cured fevers in their forming, and even advanced stages.

Dr. A. Atkinson states that a physician, who had practiced medicine in Louisiana for forty years, informed him that he had found the mucilage or tea of slippery-elm bark a very superior remedy for the fevers peculiar to that country (such as bilious and others); that he had used little or nothing else for many years; and they generally recovered. He thought no person would die of fever who could procure slippery-elm. When we reflect that these diseases irritate, and often ulcerate, the mucous coat of the intestines, we must see the utility of administering this cooling and soothing drink. Nothing so soon reduces inflammation externally, and why not internally?

Lemonade may also be freely drunk as a change, except when stimulating medicines are given to produce perspiration. In such cases it ought not to be taken, except when very warm.

Tonics—I have often given tonics in fevers when there was some little remission, but have seen little or no effect from them. There is one article, however, that may be given with benefit, which combines tonic and diaphoretic properties: Take Virginia snake-root, and add boiling water; to be given occasionally through the day: an infusion of boneset may also be given.

Having spoken of the general treatment of remittent fever, I shall now speak of particular symptoms.

Headache—There is usually great pain in the head, to relieve which the feet must be frequently bathed in warm water, and the following plaster applied to them, and also to the nape of the neck: Take Indian meal and mustard, equal parts; add warm water sufficient to form a plaster or paste.

Sickness at the Stomach—This symptom is very common, and extremely distressing; to allay which give an infusion of spearmint. Sometimes peppermint given in the same manner proves even more serviceable. A mustard plaster, or the same articles bruised and mixed with a small quantity of vinegar, and applied over the pit or region of the stomach, have proved very effectual.

Should not this allay the vomiting, give the neutralizing mixture; or a little saleratus may be dissolved in cold water, and given.

Local Pains and Congestion—When any particular part or organ is very much affected, apply a fomentation of bitter herbs. Should these not remove the irritation, a mustard plaster may be applied; a little Indian meal to be added, to prevent the flesh from becoming excoriated.

Canker—If there are ulcerous spots in the mouth, or the throat is sore, let it be gargled with a decoction of sage and hyssop, sweetened with honey, to which add a little powdered borax.

Cough—Should there be a cough, demulcent and mucilaginous medicines must be given, a decoction of hoarhound sweetened with honey, and such as are mentioned under the head of "Coughs."

SCARLET FEVER.

Children are far more liable to contract this complaint than adults, as very few of the latter will have the disease when exposed. The interval between the exposure and the attack varies from two or three days to three weeks. Patients may have the disease without exposure to those who are sick with it, especially when it is prevailing in the neighborhood.

General Symptoms—Scarlet fever usually commences suddenly, with the ordinary forerunners of fever—chills and shiverings, succeeded by hot skin, nausea, sometimes vomiting, rapid pulse, thirst, frontal headache and sore throat. The last named symptom—sore throat—is generally the earliest complained of by the patient. In about forty-eight hours after the occurrence of these symptoms, the characteristic rash is perceptible, first on the breast, from whence it gradually extends to the neck, face, trunk, over the great joints and limbs, till the whole body is covered with it. The eruption is bright scarlet, and consists of innumerable red points or spots, which have been compared to a boiled lobster shell. These spots either run together, and diffuse themselves uniformly over the skin, or else appear in large, irregular patches in different parts of the body. The color of the skin disappears on pressure, but returns on its removal. The appearance of the tongue is characteristic; it is first coated, the tip and edges are red, the pimples are red and raised; afterwards the tongue becomes clean and raw-looking. A diffused redness sometimes of a dark claret-color, covers the mouth, etc., which disappears as the febrile symptoms and rash subside. On

SCARLET FEVER.

MEASLES.

SMALL-POX.

Eruptions by which the several diseases named can be readily distinguished. (Consult Index.)
(Ordinary Type of Eruptions.)

about the fifth day the rash generally begins to decline, and entirely disappears by about the eighth or ninth day, leaving the patient in a weak condition. The subsequent process of peeling off of the cuticle is variable in its duration; it takes place in the form of scurf, from the face and trunk; but from the hands and feet large flakes are separated, sometimes coming away entire like a glove or slipper.

2. Dr. Stevens asserts that he has used the "cayenne gargle" in about four hundred cases of scarlet fever, with almost uniform success. Now, if this were used in connection with the bacon remedy, this dreaded disease would be effectually mastered. This gargle is prepared as follows: One teaspoonful of cayenne pepper, two teaspoonfuls of salt, and half a pint of boiling water; strain, and add half a pint of good vinegar. When cold, give a teaspoonful every hour to an adult, reducing the dose in proportion to age. Frequently gargle the throat with the same mixture.

3. The following remedy is published by the Academy of Medicine of Paris, and pronounced a never-failing cure for this disease. This is the prescription:

"Take, of

Sulphate of zinc..... 1 grain.
Fox-glove *(Digitalis)* ..... 1 grain.
Sugar .....½ teaspoonful.

Mix with two tablespoonfuls of water. When mixed, add four ounces (eight tablespoonfuls) of water, and take a tablespoonful every hour. The disease will abate in twelve hours. For a child, smaller doses, according to age." (See Table of Doses for Children.") With this treatment, we have known the disease to disappear in less than twenty-four hours and have not known a single failure in effecting a speedy cure. It is likewise effective in small-pox.

Dr. W. Field of Wilmington, Delaware, gives the following: tablespoonful of brewer's yeast in three tablespoonfuls of sweetened water three times a day. For children, half the dose.

A very safe and remarkably sure remedy in scarlet fever, is the external use of old, uncooked fat bacon, with low diet and cooling drinks, as hereinafter given. We know many who owe their lives to this remedy, after they had been given up as incurable.

It is almost marvelous, but nevertheless a fact, that of the numerous scarlet fever patients who have come under our observation through a series of years, death has rarely occurred in any stage of the disease after this remedy was applied.

A RECENT CASE THAT ILLUSTRATES THE EFFICACY OF THIS REMEDY IN THIS DISEASE, IS THAT OF A CHILD OF MR. JOHN WILSON, OF PHILADELPHIA. WHEN THE CHILD BECAME DANGEROUSLY ILL, HIS FAMILY PHYSICIAN REQUESTED THAT ANOTHER PHYSICIAN BE CALLED; FINALLY A THIRD ONE WAS SUMMONED. AFTER THE UNIFORM DECISION WAS THAT THE CHILD MUST DIE, AND THE PHYSICIANS HAD TAKEN THEIR DEPARTURE, THE BACON REMEDY WAS USED. IT HAD A MAGICAL EFFECT ALMOST FROM THE MOMENT IT WAS EMPLOYED, AND THE CHILD'S LIFE WAS SAVED. IT IS TO BE USED AS FOLLOWS:

The whole surface of the body should be rubbed with the bacon twice a day. In severe cases, bind thin slices of it on the neck, breast and soles of the feet. Before the first application of the bacon is made, wash the whole surface of the body with tepid water.

A medical author writes: "I can cure forty-nine out of every fifty cases of scarlet fever with lemon and gum arabic. It is as unnecessary that a child should die of scarlet fever as it is that it should be blind with cataract. With the proper use of this remedy and the treatment hereinafter given, I will guarantee that not one in a hundred scarlet fever patients will die."

At the beginning of the attack, undress the child, place it in bed, give it to drink some sourish lemonade, with gum arabic in it (one half a teaspoonful of the gum to a glass of lemonade), cover its abdomen with dry flannel; then wrap the child in a white woolen blanket wrung out of hot water, put a dry blanket on top; then add additional cover to make the child perspire. Perspiration will take place in fifteen or twenty minutes. If the child is restless, wring a cloth out of tepid water and place it on the forehead, keeping the patient always in a cheerful frame of mind.

If free perspiration does not ensue in due time, place hot water bags outside the under blanket. For drink, use the lemonade and gum arabic. After the child has perspired one hour, wipe it dry and rub the whole surface of the body with bacon grease pressed out of old fat bacon; then clothe it in its nightdress, and cover with only sufficient clothing to make it comfortable.

Mortification—The face and inside of the mouth sometimes mortify in scarlet fever. When this is the case, apply a yeast-poultice over the part, and let the mouth be gargled with it; or apply it to the parts in the best manner possible.

Dr. Ludlam says, "I find diluted acetic acid—one part of the acid to twelve parts of water—the best wash for the mouth and throat. It tends to remove the deposits which form on the mucous membrane, and is eminently antiseptic."

Accessory Treatment—The patient should be placed in a separate room which can be so ventilated as to secure a copious and continual supply of fresh air; for the one means above all others which mitigates the virulence and infectiveness of scarlet fever is ventilation. The room should be as free from furniture as possible. Curtains, carpets and woolen stuffs should be removed. A fire is necessary in cold weather. Condy's fluid or carbolic acid should be freely used about the room. The door of the sick-chamber should be open as little as possible. A fire in all seasons—as small as may be in summer—and an open window ensure the most efficient ventilation. Two or three vessels with Condy's fluid placed about the room, and a small sheet sprinkled freely with acetic acid, diluted with twelve parts of water, and hung upon a clothes-horse, are my favorite modes of disinfecting. Sponging the surface of the body with tepid water, piece by piece, moderates the great heat and allays restlessness, quiets delirium, lowers the pulse and

favors sleep. Sponging with diluted acetic acid—one part of the acid to six parts of hot water—is preferable, or equal parts of vinegar and water. I use it as warm as the patient can bear it three times a day, and wipe, but not quite dry, the skin with a soft towel after each application. When this operation is carefully and persistently done from the moment the nature of the illness is recognized, and continued until convalescence is established, there is no desquamation or peeling off of the cuticle.

The above baths are to be employed in the first stages, after which the bacon as before stated.

A wet bandage to the throat, when it is affected, is a sovereign remedy, and seldom fails to relieve. It should be fastened both at the back of the neck and at the top of the head, so as to protect the glands near the angles of the jaws. Inhalation of steam from hot water is useful when the throat is sore and painful. The wet pack, especially at the commencement, is often most valuable, and it may be repeated several times, at a few hours' interval, as long as severe febrile symptoms continue; but it requires to be administered by an experienced person. When the eruption is slow in coming out, or is suddenly suppressed, the child should have a hot bath, or be packed in a blanket wrung out of hot water. During convalescence, warm clothing, including flannel, is necessary; and subsequently a change of air, if possible to the seaside. The patient must not, however, go out too early, as secondary symptoms are of frequent occurrence from neglect of this precaution.

Diet—During the whole course of the fever, milk, either alone or with plain or soda-water, thin gruel, sago, arrow-root, yolk of eggs beaten up with cold milk, grapes, oranges and cooked fruits, should be the staple diet. The drink may consist of cold water, gum-water, barley-water, weak lemonade, etc., in small quantities, as frequently as desired. As soon as the fever subsides, the patient may gradually and cautiously return to more substantial food. Stimulants are rarely necessary. Liebig's extract of beef, beef-tea, found on another page, may be given regularly in frequent, small doses.

The patient should invariably remain in bed; the room should be well ventilated, and at the same time the patient should be protected from direct currents of air. If possible it should be an upper room, as the poison rises, but does not descend. The clothes of the patient, the sheets, blankets and personal linen, as well as the air of the room, should be frequently changed. The light of the apartment should be modified to prevent injury to the susceptible eyes.

Beverages—Cold water, gum-water, barley-water, weak lemonade, etc., in small quantities, as frequently as desired. Drinking cold water, toast-water, or soda-water exerts a favorable influence on the kidneys, and tends to prevent subsequent diseases of those organs. To the same end sucking and swallowing small pieces of ice are both useful and grateful.

Roasted apples, grapes, strawberries, and other ripe fruits in season, toast, gruel, etc.; gradually returning, as the disease declines, to food of a more substantial kind. The fever being of short duration, extract of meat should be given freely. In scarlet fever, give all the milk the patient will take: it keeps up the strength, and does good in other ways.

Preventive Measures—1. To be adopted by the unaffected: During the prevalence of scarlatina, a dose of belladonna should be given, morning and night, to children who have not had the disease. To three tablespoonfuls of water, add five drops of the tincture, and of this give one teaspoonful at a dose. To small infants, half this quantity. Should the disease occur, notwithstanding this treatment, its severity will be much mitigated. The author has great faith in the virtue of belladonna thus used, both as the result of his own experiences, and from the testimonies of numerous correspondents.

2. To be adopted by the attendants upon the invalid: The attendant should have as little intercourse with the other members of the household as possible. She should wear over her ordinary clothes a dress of calico, which she can readily take off before she leaves the sick-chamber. She should also dip her hands into a disinfectant after touching the patient, and especially before quitting the room. Condy's fluid or chloride of lime—one tablespoonful of either to about a gallon of water—is usually employed for this purpose. All excretions from the invalid should be disinfected with the chloride of lime solution, and disposed of at once. All wearing-apparel that has been used by the patient should, on its removal, be immediately placed in a vessel containing a sufficient quantity of either of the above disinfectants, and be put out of doors as soon as possible, and afterwards boiled in the disinfectant. Woolen clothes, bedding, etc., that do not admit of being boiled, should either be burnt or fumigated with sulphuric acid for two or three hours. The sick-chamber itself, when the patient is permitted to leave it, should be disinfected in a similar manner. The operation of fumigating with sulphuric acid is exceedingly simple. All that is required is to sprinkle a small quantity of sulphur on a piece of burning wood, or a few live coals, in a room, all the apertures of which are closed up, till the room is filled with fumes. The next best thing is to burn a little coffee in the room every day.

BRAIN-FEVER.

Causes—This disease is often occasioned by night-watching, especially when joined with hard study. It may likewise proceed from hard drinking, anger, grief or anxiety. It is often occasioned by the stoppage of usual evacuations, as the bleeding piles in men, the customary discharges of women. etc. Such as imprudently

expose themselves to the heat of the sun, especially by sleeping without doors in the hot season with their heads uncovered, are often suddenly seized with inflammation of the brain, so as to awake quite delirious.

Symptoms—The symptoms which usually precede brain-fever are pain in the head, redness of the eyes, a violent flushing of the face, disturbed sleep or a total want of it, great dryness of the skin, costiveness, a retention of the urine, a small dropping of blood from the nose, singing in the ears and extreme sensibility of the nervous system.

When the inflammation is formed, the symptoms in general are similar to those of the inflammatory fever. The pulse, indeed, is often weak, irregular and trembling, but sometimes it is hard and contracted. A remarkable quickness of hearing is a common symptom of this disease, but that seldom continues long. Another usual symptom is a great throbbing or pulsation of the arteries in the neck and temples.

A constant trembling and starting of the tendons is an unfavorable symptom, as are also a suppression of urine, a total want of sleep, a constant spitting, a grinding of the teeth, which last may be considered as a kind of convulsion.

The favorable symptoms are a free perspiration, or sweating, a copious discharge of blood from the nose, the bleeding piles, a plentiful discharge of urine which lets fall a copious sediment. Sometimes the disease is carried off by a looseness, and in women by an excessive flow of the menses.

Remedies—In the early stages of this disease, when attended with a high fever and full pulse, the diet should be light; nothing more than gruel, rice, and at most toast, cracker and milk-and-water. If convulsions occur during the early stage when the fever is high, showering the head with a small stream of cold water, not continued too long, holding the head over a tub, and putting the lower extremities into warm water, will often relieve the symptoms. Renew the showering in a few minutes, until the extremities and head become somewhat cooler, unless the convulsions cease sooner; then omit it until there is a recurrence of heat in the head and extremities, when it may be repeated. It may require to be applied several times in the course of the first forty-eight hours; or what is better after the convulsions have ceased, and in cases where there are no convulsions wring a towel from cold water, and envelop the entire head with it, excepting the face, and put over the whole three or four thicknesses of dry flannel, and pin so as to exclude the cold air; wet the towel every hour or two. This application often affords very great relief. If it fails, sponging the head with warm water generally has a beneficial effect.

If the bowels are constipated, free injections of warm water once in twenty-four or forty-eight hours may be used.

Efforts should be made to restore the blood to the extremities.

and thus divert it from the brain. Bathe the feet in a warm alkaline bath, made by adding a little saleratus, or lye, or ashes, to warm water. A hot mustard foot bath will be equally efficient. This should be done two or three times a day; and have either hot bricks or drafts of the leaves of common cabbage, skunk-cabbage, or horse-radish, wilted by the fire, applied to them.

The patient may be allowed to drink lemonade, water made acid with cream of tartar, and also spearmint-tea, with a little sweet spirits of nitre in it. The latter will act as a diuretic, which will prove of much advantage.

The room must be cool, free from noise, and kept dark. Callers and visitors, no matter how kind their intentions and desires may be, must positively be kept out of the sick-room. Their presence always makes the disease worse.

When convalescence takes place, it must be remembered that the patient is not out of danger for several weeks. Too full a meal, over-exercise, or even slight excitement of the mind, may cause a relapse.

1. During the progress of the disease, the following remedy is often efficacious:

Tincture of aconite.....10 drops.
Tincture of yellow jessamine.....10 drops.
Water..... 1 teacupful.

Mix. Dose, one teaspoonful every hour, until the acute symptoms abate, when it should be given less frequently.

2. Take of

Castor oil.....1 tablespoonful.
Strong castile-soapsuds .....½ pint.
Poppy-leaves.....1 handful.
Water (warm).....½ pint.

Mix thoroughly, and strain.

Use as an injection. When patients are in the most intense agonies, in this disease, this remedy will often afford the promptest relief.

In extreme cases of this disease, applications of ice to the head have been made with great benefit. There have been instances in which its use, from forty-eight to sixty hours, have been followed by the recovery of the patient. But in such cases ice should be employed under the direction of a skillful physician, or by those only who are experienced in its use.

FEVER AND AGUE, OR CHILLS AND FEVER.

(Intermittent Fever).

Causes—Marsh-miasma, or the effluvia arising from stagnant water or marshy ground, when acted upon by heat, are most frequently the exciting causes of this fever. In marshes the putre-

faction of vegetable and animal matter is always going forward; and hence it has been generally conjectured that vegetable or animal putrefaction imparted a peculiar quality to the watery particles of the effluvia arising thence. It has been ascertained that marsh-miasma, when much diluted with watery exhalation, as in summers where an unusual quantity of rain has fallen, are nearly inert; but when arising from stagnant waters of a concentrated foulness, in consequence of great drought and heat in the latter end of summer and the early part of autumn, they act with great violence and malignity.

This disease may also be occasioned by debility, however induced, by a poor, watery diet, damp houses, evening dews, lying upon the damp ground, watching, fatigue, depressing passions of the mind, etc.

When the inhabitants of a high country remove to a low one, they are generally seized with intermittent fevers, and to such the disease is sometimes apt to prove fatal. In a word, whatever relaxes the solids, diminishes the perspiration, or obstructs the circulation in the capillary or small vessels, disposes the body to ague.

Symptoms—This disease may be divided into three stages, viz.: 1. The cold stage. 2. The hot stage. 3. The sweating stage.

Cold Stage—An intermitting fever generally begins with pain in the head and loins, weariness of the limbs, coldness of the extremities, stretching, yawning, with sometimes great sickness and vomiting; to which succeed shivering and violent shaking; respiration is short, frequent and anxious.

Hot Stage—After a longer or shorter continuance of shivering, the heat of the body gradually returns; irregularly at first, and by transient flushes; soon, however, succeeded by a steady, dry and burning heat, considerably augmenting above the natural standard. The skin, which before was pale and constricted, becomes now swollen, tense and red, and is remarkably sensible to the touch. The sensibility, diminished in the cold stages, is now preternaturally acute; pains attack the head, and flying pains are felt over various parts of the body. The pulse is quick, strong and hard; the tongue white, the thirst is great, and the urine is high-colored.

Sweating Stage—A moisture is at length observed to break out upon the face and neck, which soon becomes universal and uniform. The heat falls to its ordinary standard; the pulse diminishes in frequency, and becomes full and free; the urine deposits a sediment; the bowels are no longer confined; respiration is free and full; all the functions are restored to their natural order.

The title of intermittent, or chill and fever, is applied to that kind of fever which consists of a succession of paroxysms or periods of fever, between each of which there is a distinct and perfect intermission from fever-symptoms; whereas, on the other hand, by

remittent fever is understood, that form of fever that abates, but does not go off entirely before a fresh attack follows; or, in other words, where one paroxysm succeeds the other so quickly that the patient is never without some degree of fever. It is probable, however, that these two forms of fever are one and the same disease, differing only in degree or intensity of the symptoms.

Remedies—1. A tincture made from the gum-plant, or gum-weed (*Grindelia Squarrosa*), is an efficient remedy in this disease, especially in chronic cases. Take, of the tincture four tablespoonfuls; glycerine, four tablespoonfuls. Mix. Dose, one teaspoonful, four times a day. This tincture can be obtained in almost any drug-store.

2. In the states where the iron-wood grows, it is reputed by many to be an excellent cure. It is used in strong decoction or tea, made by chipping the heart of the tree and steeping it. Dose, one-half teacupful three or four times daily.

3. Sometimes a simple remedy is very effective in curing chills and fever. Lemon-juice, for instance, will often cure without any other medicine; but its curative properties are greatly increased, it is said, when used with coffee. The juice of one lemon is to be added to a teacupful of coffee, and drunk at one draught, without milk or sugar. The dose should be taken twice a day. Another good mode of preparing this remedy is to cut a half dozen lemons into slices, boil for half an hour in half a pint of water. Strain, and give a teaspoonful every two hours through the day when the chill is on, other days give the same quantity every four hours.

4. A decoction of the root of the iron-weed, taken in doses of one-half wineglassful or more, three times a day, is an excellent remedy.

5. A strong tea made from the dog-wood, sometimes called box-wood (*Cornus Florida*), will, it is said, cure fever and ague, especially the chronic form. It is harmless and may be drunk freely, and should be continued for some time.

6. Kerosene oil and milk is reputed to be a positive cure for this disease. Mr. S. Brown, of Los Angeles, California, cured himself with one dose of it after he had been afflicted with chills and fever for two years. He afterwards cured more than fifty others, with the same remedy. The usual dose of the remedy is one teaspoonful of oil in a tumblerful of milk. One dose is usually sufficient to effect a cure. But if not, repeat daily; persons of a feeble constitution should take one-half the quantity of oil only.

Boneset is a popular remedy for chills and fever. Dose of the tea, quarter to half teacupful three times daily. Extracts, 2 to 4 drops.

Watermelon seeds are an infallible remedy for the cure of chills and fever. Dr. Harrison G. Richards, superintendent of a railroad, writes from New Orleans: "The people down here all use them, and likewise our men on the railroad, and it has never been known to fail to cure this disease. Make a tea of the seeds

drink freely. Intermittent fever, or ague and fever, is described as having three stages: the cold stage, the hot stage, and the stage of perspiration or sweating. The three stages just mentioned should be well marked and distinct; in other words, well separated from each other, and one following another in regular order. There should be a pale, jaundiced color of the face, the tongue coated yellow, appetite diminished or entirely destroyed. When this is the general condition of the patient, quinine will be of service to him. It should be administered during the interval between the paroxysms, and when he is entirely free from fever.

If the fever comes on every other day, the quinine should be taken on the well day, or during the time the patient is feeling the best. If it comes on at stated times every day, this medicine should not be taken until the fever has entirely passed off, and the sweating stage has fairly commenced. When the proper time has arrived, and you desire to take the quinine, get it ready in the following manner: Put ten grains of it into a tumbler containing five tablespoonfuls of water. To this add five drops of elixir vitriol (sulphuric acid); stir well together. You will now have a clear solution, looking almost like spring-water. If you know you are to be free from fever all day, commence in the morning early, and take one tablespoonful, and one every two to four hours, until the whole quantity is taken. If your chills come on at a certain time every day, say at six o'clock in the morning, and last two hours, or until eight, and then the fever sets in and lasts until twelve or one o'clock, in the afternoon, when it subsides, and a free perspiration or sweating breaks out—then begin to take your quinine. You are to have it prepared as above described. Take a tablespoonful every two hours, until you have taken four doses. You will have one tablespoonful left. Do not take this until four or five o'clock the next morning; thus taking the last of the quinine at least an hour before you expect your chills would come on again. Ordinarily this will be sufficient treatment to break any paroxysm of ague and fever. Usually it is best to take, for several days afterwards, a bitter drink of some kind, such as boneset tea, or a decoction of wild cherry-bark. Or, take a tablespoonful of Peruvian bark, and throw it into a pint of hot water. Cover the dish and let it stand near the fire. In two hours it will be ready for use. You can take a wineglassful of either of these preparations once or twice daily

Accessory Treatment—Removal to a healthy locality is one of the first and most essential points, and is often immediately attended by marked improvement. If compelled to live in an aguish district, patients should not go out of doors in the evening, or too early in the morning—at least, not before taking breakfast; they should sleep in the loftiest part of the house. Sunlight and air should be freely admitted during the middle of the day, but night-air carefully excluded. Fatigue should be avoided; also sitting or standing in a current of air.

Diet—On the days when the fits occur, the food should be light, taken in small quantities, and great dietetic precautions observed until the paroxysms entirely disappear Gruel, arrow-root, tapioca, sago, or corn-flour; mutton or chicken-broth, or tender meat, may be taken in the intervals between the fits. Cold water, *ad libitum*.

Prevention of Chills and Fever—In a section of country where people are subject to this disease, and where they are compelled to be out of doors early in the morning and late in the evening, a hot meal, or at least a cup of hot drink and a slice of bread, should be taken before leaving the house, and it will ward off this disease.

In these malarious sections of country, men should wear their beards. Immunity may also be secured to a great extent by keeping the mouth shut, and breathing only through the nostrils.

Flannel worn next the skin will keep the body warm, and protect it from the influences of sudden changes.

Symptoms—There is a severe pain in one side of the head, or extending over the whole of it, and which is not only periodic in its attacks, but is frequently preceded by slight chills, or sensation of cold, with more or less depression of spirits. Sometimes the pain will be in the face, in one or more teeth, in the chest, or any other part of the body, and may be determined by its periodicity, slight chills, etc.

SPOTTED FEVER (Typhus Petechialis).

Symptoms—Some patients are seized with violent pains in the stomach, head, joints and limbs; and frequently the pain is confined to a single point; often to a single toe or finger. Some have a violent ague and shaking, and yet are not sensible of cold; and some have no heat. Some are taken suddenly, totally blind or impenetrably deaf; others are not affected at all in those organs. Paralysis of a member is not infrequent, and a strange numbness is felt in the nose and face of some, which leads them to be rubbing their face, and that for hours. Some have raving or furious delirium, others a playful or hysteric alienation of the mind, while others are more shrewd than when in health. Some are conscious of their sinking, yet seem not to mind it. Some fall into a snoring, lethargic sleep, from which nothing will rouse them. Some are so painfully sensitive as to complain of the slightest touch or motion, while others feel not the pricks of needles, nor even the contact of living coals.

The pulse is commonly feeble, frequent, irregular, and often interrupted. In some cases it seems inflated, yet will disappear on

the slightest pressure. Sometimes, when the pulse is gone in the wrist, the arteries of the neck will be seen beating with seemingly impatient and fretful motion.

Bleedings are frequent from different parts of the body, and often fatal. Purple spots appear in some, from oozing of the blood from the relaxed vessels of the true skin, yet without sufficient force to penetrate or elevate the scarf-skin, and spreading to various sizes, from a point to that of a twenty-five cent piece, and assuming different hues, from scarlet to black. In this disease, however, there are often no spots or fever at all, and the patient is in many cases dead before fever could form.

From the onset a clay-like coldness comes over the whole system, and all efforts to restore genial warmth are frequently unavailing. The tongue is in some cases clear and moist, in others dry, in others bloodless; in the progress of the disease it commonly turns brown or black. The swallowing is often difficult, from canker in the throat or from paralysis of the parts. Nausea and vomiting commonly harass the patient from the first to last; yet the contents of the stomach are not at all vitiated. The bowels seldom suffer at all. A horrid sensation of cold is felt in the stomach, as if ice was melting there; this symptom, as well as that of vomiting, is greatly aggravated by drinking cold water or any weak beverage. Patients who inquire for water cannot distinguish it from brandy.

Remedies—We would advise that a good physician should be immediately sent for, though frequently it will not do to wait for his arrival. The treatment must be pursued vigorously, as, with such symptoms as we have described, no time is to be lost.

Put a mustard-plaster over the back of the neck, lengthways downwards; rub the body well, rub the spine its entire length with spirits of turpentine, rapidly and persistently, or with red pepper and brandy, keep hot bottles to the feet if cold; do all that is possible to keep the whole surface of the body soft and warm.

It is always necessary, in this disease, to promote free perspiration. To accomplish this purpose, the following remedy, which acts most promptly and certainly, is highly recommended; it is the tincture of *jaborandi.* It may be given in doses of from fifteen to thirty drops, every two or four hours, according to the severity of the disease.

When the disease runs slower, treat it as a typhus fever; after this, move the bowels with one ounce of castor oil and fifteen drops of spirits of turpentine, bathe the feet thoroughly in mustard and water, and give freely an infusion of pleurisy root and boneset. Sponge frequently with vinegar and water.

YELLOW FEVER.

Symptoms—Premonitory symptoms, such as loss of appe-

tite, debility, aching in the back and limbs, etc., may or may not precede the attack, but cannot be said to indicate it, as they precede many other diseases, and are often followed by no serious illness. An attack of yellow fever frequently comes on in the night, as often without as with chills or chilliness. Severe pains in the back and limbs do, however, usually characterize the early stage of this disease. The skin becomes dry and hot, the pulse rapid, the breathing hurried, the face flushed, the eyes red and watery, and a white fur appears upon the tongue, which is usually moist at the beginning. There are, sometimes, sore throat, nausea and vomiting, from the commencement; but usually, these stomach symptoms are not fully developed till after a period of from twelve to twenty-four hours, when they become very prominent. There is soreness in the stomach, on pressure, and a feeling of weight and oppression, with burning pain. The stomach becomes irritable, not only throwing up everything that is swallowed, but also, when undisturbed by food or medicine, throwing up its own secretions, with great pain and distress, owing to the tenderness of that organ. The patient craves cold drinks, the bowels are costive, and the head and eyes ache; the mind is often disturbed, and, not uncommonly, even to the point of delirium, which is occasionally violent. On the other hand, in some instances, there appears a profound stupor. The feverous symptoms continue, with little or no change, for a period varying from a few hours to three days, and sometimes longer. As a general rule, the more severe the attack, the shorter will be the duration of the fever.

In mild cases, when the fever abates, the patient may readily recover; but we may know that the great struggle is yet to come, when, during this apparent calm, there is increased tenderness in the stomach, on pressure, and the eyes and skin begin to turn of a yellow or orange color, generally extending over the body, and the urine has a yellowish tinge. In symptoms, the pulse may even be slower than natural, and, in the most cases, there may be heaviness or stupor.

This period of seeming abatement may last only a short time, or may continue for twenty-four hours, and is followed by prostration. The pulse again becomes quick, and, in severe cases, irregular and feeble; the circulation returning slowly to any portion of the skin where a pressure has been made. The fingers and toes assume a dark, purplish hue. The skin appears like bronze. The tongue is either brown and dryish in the center, or smooth, red and chapped. The teeth are sometimes covered with offensive crusts of dried mucus. The stomach again becomes so irritable that everything swallowed is thrown up, and ultimately new matter is vomited, consisting of brown or blackish particles, in a colorless fluid, which finally becomes black and opaque. This stage of the disease is popularly known as that of the "black vomit." These symptoms have occurred, in bad cases, as early as the first day. The

urine is commonly more natural than in the febrile stage, but is sometimes retained, or not even secreted. There is often oozing of blood from the nose, gums, tongue and throat, and it is often discharged by the stomach or bowels, or by the urine, and dark spots appear on the surface of the body, caused by the clotting of the blood under the skin. The bowels often discharge large quantities of black matter, similar to that thrown from the stomach. The patient does not care whether he lives or dies; the pulse grows feebler, the breathing slow and sighing and broken by occasional hiccough; the skin grows cold and clammy; the body emits an offensive odor; a muttering delirium sets in; the eyes sink, the pulse ceases, and the face collapses. Death comes sometimes quietly, but often in convulsions.

Instead of following the fatal course just described, the symptoms may react after the period of abatement. Then a secondary fever sets in, of different degrees of violence; but this may always be taken as a sign that the vital energies are not yet exhausted. This fever may end, more or less speedily, in health; or it may soon end in complete exhaustion, or it may take a typhoid form, and last two, three, or even four weeks. If the patient dies, it is usually on the fourth, fifth or sixth day; but death may come as early as the third, or not until the ninth or tenth day, and in typhoid cases even much later or not until the entire vital forces are exhausted.

Such are the usual course and symptoms of this fever; but it is subject to great variations, as it is often complicated with typhus and remittent fevers. Although much speculation has been indulged, and many theories advanced, almost nothing is certainly known of its cause. It is epidemic, and, perhaps, to a limited extent, contagious.

Remedies—1. In an epidemic in Savannah, salicylic acid was used in a single dose of a drachm and a half in capsules, or rubbed up with sugar; if the stomach rejected it, twice the quantity (three drachms) was given by injections into the bowels. Out of one hundred and seventy-nine patients only four died. The disease during that epidemic was of intermittent and remittent type.

2. A medical writer, in speaking of the treatment of yellow fever, observes, "Having had opportunities of seeing much of this disease in Havana and on the coast of Spain, as well as up the Mediterranean, where it prevails extensively, I will give you the treatment generally adopted by the Spanish physicians. It consists in the use of mild and cooling laxatives, such as supertartrate of potassa, or cream of tartar, and drinks of tamarind-water, lemonade and sub-acid drinks, with tea made from orange-flowers, and, in the cold stage, a mustard-bath."

3. A remedy for this disease, used with great success in Mexico, is given by a medical writer from that country, as follows: "A tumblerful of olive-oil, well mixed with the juice of three limes

and a tablespoonful of fine salt. Give one-third of this quantity at the first dose; afterwards, give a tablespoonful every two hours. If this should act too violently or too frequently on the bowels, increase the interval between the doses, even to four or six hours.

He further says, that he has seen it used in hundreds of cases, many of them the most desperate he ever saw, and seldom fail to effect a cure. It sometimes causes the patient to vomit; in such cases it should be repeated until the stomach will retain it. When the limes cannot be procured, use two lemons instead.

4. During the epidemic of 1878, in the Southern States, where the following treatment was employed, excellent results were obtained: The bowels were kept open and the kidneys active, by the use of the hyposulphite of soda. An ounce of this salt was dissolved in eight ounces of water and a tablespoonful given every four hours. One of the best means now known for its continuous laxative effect is derived from a teaspoonful of elixir of cascara sagrada once to thrice a day as required. The patient was kept well covered with blankets, and a gentle sweating encouraged by the use of orange-leaf or horse-mint tea. Besides this, keeping the patient in bed during the stage of calm and giving liquid nourishment and stimulants and small doses of quinine, constitute the treatment. An almost universal fatality was reduced to a fatality of one in ten in whites, two in fifeeen in mulattoes, and one in thirty-six in negroes. Getting up, or eating solid food of any kind during the disease, which patients desire to do during the stage of calm, is almost always fatal.

Accessory Treatment—The importance of cleanliness in so serious a contagious disease will be apparent. Discharges of the patient, and all soiled articles, should be quickly disinfected and removed, and the air of the apartment kept as fresh and untainted as possible. During the chill, a hot mustard foot-bath, repeated in a short time, if necessary, often gives ease.

Some care must be employed in the use of a purgative, which is seldom indicated on account of the great irritability of the stomach and bowels, and which may be increased to an ungovernable extent by the imprudent administration of a purgative. Should, however, evident accumulations exist in the bowels, a copious injection of warm soapsuds is good to relieve the lower bowel.

During the febrile stage, while the skin is hot and dry, the whole surface of the body should be thoroughly bathed every hour or two with warm, weak lye-water, to which a small portion of whisky has been added, using friction in drying. In many cases, especially when the skin is very hot, frequent bathing of the surface with cold water, or with the above weak lye, cold, will be found more grateful, and more beneficial in abating the fever, than when warm fluids are employed. These bathings should be suspended whenever the fever diminishes, and renewed as soon as it returns.

An infusion of peach-tree bark may be employed to check

irritation of the stomach, and warm diaphoretic teas to produce sweating.

Those who live where yellow fever is prevalent should eat an orange every day, and drink freely of lemonade, and by all means get plenty of sleep.

New Treatment—During recent visitations of yellow fever the following new remedy was used with almost uniform success, and is highly recommended:

First give the patient an emetic of mustard and warm water. Then fill a wash tub half-full of boiling water, throwing into it a pound of good ground mustard and a quart of good whisky or brandy. At the same time prepare a foot-tub in the same way, except that the water in it shall be only as hot as can be borne. Place over the large tub a chair, and just as the patient is seated in it give him a half-teaspoonful of castor oil. His feet, of course, are in the small tub and the body over the large one. Then cover him up, on every side, with blankets. Keep up the heat of the water in the large tub by throwing into it, occasionally, red-hot bricks or irons, and go on in this way for from fifteen minutes to half an hour. In the meantime, give all the pulverized ice the patient can swallow, as long as he is in the bath. The oil will generally operate while he is in the bath. Keep this up for half an hour, unless the pains cease or the patient is too weak. Then place him in bed with the bath blankets wrapped around him, and give him melon-seed tea for the kidneys, and a little Dover's powder to induce sleep. He will sleep two or three hours, and on waking, should the pains re-appear, apply mustard plasters. Continue the moderate sweating and melon-seed tea for a few hours, until the fever is completely broken up, and then change the bed and body linen. Then nurse him carefully for two or three days with light food, stimulants, keeping the pores and bowels open and the kidneys active, and you have a safe convalescent.

We have necessarily been brief in the treatment of this disease, from the fact that professional aid is always called to patients afflicted with this malady.

ENLARGED SPLEEN, OR AGUE-CAKE.

Causes—This disease may be caused by great muscular exertion, by fever, and also by the malaria, or poison which causes ague. It is quite common in connection with chills and fever.

Symptoms—This disease is characterized by a chill or sharp pain beneath the lower left ribs, with more or less tenderness on external pressure. In some instances there is very little pain, simply a feeling of weight or fullness, which is worse when the patient lies on the affected side. The attack is generally accompanied with chills and fever, and sometimes there are nausea and

vomiting, cough, difficulty of breathing and hiccough. The spleen often becomes enlarged so as to be felt beneath the lower left ribs.

Remedies—1. The Indian cup-plant, called also ragged-cup and rosin-weed, is a remedy that seldom fails to cure this disease. Dose, a wineglassful two or three times a day.

2. The following is an efficient remedy: Tincture of gum-plant (*Grindelia Squarrosa*) and glycerine, each, two ounces. Mix. Dose, a teaspoonful, four times a day.

3. A good plaster for this disease is the yolk of two eggs thickened with salt, and applied.

4. The Bear's Foot (*Polymnia Uvedalia*) is a new remedy for removing enlarged spleen. A strong tincture is made, by adding eight ounces of the bear's foot to one pint of alcohol. Dose, from ten to thirty drops. MASSAGE over the region of the spleen, if thoroughly done, once or twice a day, is an effectual cure. Massage is the German name for rubbing, squeezing, slapping, etc., lightly but rapidly performed.

Accessory Treatment—Apply cayenne pepper (*Capsicum Annuum*), mixed and simmered with spirits, to the part.

Should this not relieve the pain and mitigate the symptoms, a mustard-plaster may be applied to the side or over the region of the spleen.

The diet of the patient must be nourishing but easy of digestion, avoiding tea, coffee, milk, alcoholic stimulants, acids and all fats. Ripe fruits and dried fruits, stewed, will be found serviceable. Moderate exercise; regularly taken in the open air, should always be had when the weather will permit; otherwise, it must be pursued within doors. Cold, damp, and sudden exposures, are causes of relapse, to be carefully avoided as much as possible.

The body and limbs should be bathed every day or two with a warm, weak lye-water, and in drying, a coarse towel should be used with much friction; a spirit-vapor bath should also be taken every week or two.

AGUE IN THE FACE.

This disease has a common origin with ague in general, though many causes, as cold, damp air, etc., may be sufficient to bring on an attack. The remedies that may be employed for its removal are the same as those used to cure any other form of ague. Hence, the reader is referred to the general remedies under fever and ague, for the proper treatment of ague in the face.

It is confined mostly to weak, nervous persons, and those of weak and delicate constitutions. It usually affects some one locality or spot of the face or head—most frequently one side of the face—rendering the place extremely sore and sensitive to the touch. A very slight touch, even that of a handkerchief, will often be more

painful than a hard pressure of the hand. The skin often becomes red and swollen. The eyes also become weak and watery, sometimes red, and usually very sensitive to light. The pain is also apt to be periodical. Defective teeth may occasion the whole trouble, and should be examined by the dentist.

Remedies—A few local remedies, as the following, may be used: If the swelling of the face be very great, apply a lye-poultice. Or, dip a piece of cotton or lint in the tincture of red pepper (*Capsicum*), made warm, and place it between the cheek and the teeth. A free discharge of saliva follows, which usually affords immediate relief.

TO REMOVE FRECKLES.

1. Make a paste of English mustard and lemon juice, apply to the face four nights in succession, wash off in the morning. The freckles will generally disappear and likewise the redness.

2. Another is to take one-half teacupful of rain water and two teaspoonfuls of powdered borax, and with this wash the parts twice a day. This is a never-failing remedy for removing freckles of people possessing certain textures of skin.

3. With others, the following is equally as effective: Two teaspoonfuls of lemon-juice, one of powdered borax and one of sugar; mix, and let stand a day or two. Then apply once or twice a day.

4. It is reported, by some medical authors, that the milky juice of the stem of the dandelion will remove freckles It should be applied twice a day.

FELON, OR WHITLOW (Paronychia).

A felon is an inflammation of the fingers, thumb or hand, exceedingly painful and very much disposed to suppurate or form matter. The toes are also sometimes the seat of the disease. The pain commences deep, with pricking, throbbing and inflammation. It proceeds very slowly to suppuration, and often affects the bone and sinews.

Remedies—1. As a preventive wrap the finger with woolen yarn or any other elastic cord, beginning at the end and continuing till past the point where the felon is coming. The string should be wound as tightly as can comfortably be borne. This should be done when the felon first appears.

2. Take equal parts of brown soap and unslaked lime; mix with whisky until a salve is formed. Bind a large quantity on the felon, and in from eighteen to twenty-four hours it will draw the matter to the surface, when it can be removed.

3. *It is unnecessary for anyone to have a felon, if the white*

of an egg and salt be applied in time. They should be mixed and used in the form of a poultice, at the commencement, and they will disperse or "scatter" it.

4. Remove the shell from the end of a raw egg, and take out two tablespoonfuls of its contents; after which, fill the egg again with one teaspoonful of salt and one of burnt alum. Mix. Then place the afflicted finger in the egg, and keep it there until the contents harden, as if it were cooked. Repeat the process four or five times and the the felon is cured.

5. A French army-surgeon, gives the following: "The spinal cord of a beef, used in the form of a poultice, will rapidly cure a felon in almost any stage."

6. A mixture, composed of two parts of lard and one of gunpowder, applied to a felon, will disperse, or "scatter" it; or, if it is in the advanced stage, it will draw it to a head in twelve or fifteen hours.

The following information is invaluable for all those afflicted with felons. A physician in Fort Worth, Texas, says he would not be deprived of the knowledge of this fact for hundreds of dollars, even were he not in the practice of medicine: Hold the hand in the smoke of burning wool until relieved of pain which will soon occur; repeat the treatment if the pain returns. This has been found a sovereign relief in cases of excruciating pain.

7. Take a pint of common wood-ashes, and over them pour one quart of boiling water. Stir it well, and let it stand on the stove for about ten minutes, and when well settled, pour off the clear liquor, and while hot as can be borne, immerse the affected part in it, and keep it there for half an hour or more, and repeat the process every hour until the soreness subsides. If applied in time it will "scatter" the felon.

For ordinary drawing purposes, in place of a poultice, sliced lemon is a very superior article.

8. Place the hand sufficiently deep in a bowl of kerosene oil to completely cover the affected part. It will often stop the pain, and a few applications will not unfrequently kill the felon.

FISTULA IN ANO.

A Fistula is a narrow, pipe-like track, lined by an imperfect mucous membrane, secreting pus, having a narrow, callous opening, situated within a short distance of the verge of the anus.

Causes—The causes of fistula are numerous; such as costiveness and relaxation of the bowels, derangement of the liver and alimentary canal, sedentary habits, high living, plethora, bruises, piles, etc. It is often connected with, and probably produces, a pulmonary disease.

Symptoms—The *fistula* usually commences with swelling near the rectum, attended with great pain, hardness and acute inflammation; the tumor advances slowly to suppuration, and matter is formed.

In some cases, however, the disease proceeds till an opening is formed, with very little pain—so much so, that the patient is ignorant of the time when it formed; but more generally the pain is very severe, swelling great, and suppuration very extensive; and in consequence of the pressure upon the neck of the bladder, or urethra, there is a suppression of urine.

Remedies—The treatment of fistula depends upon the stage in which we are called to prescribe. A very different course is required in a state of inflammation from that of suppuration or abcess. I shall first treat of the means to be employed in its incipient, forming, or inflammatory stage. First, moderate excessive inflammation; second, diminish painful or urgent symptoms; third, promote suppuration, if the swelling cannot be discussed or "scattered;" to accomplish which the following discutient ointment may be first applied to the swelling.

Extract	stramonium	1 drachm.
"	hamamelis	1 drachm.
"	hydrastis	½ drachm.
"	hyoscyamus	½ drachm.

Mix with vaseline sufficient for a soft paste. Anoint the fungus thoroughly and get a small quantity above the sphincter ani. Immediately after application let it be steamed or fomented with bitter herbs, tansy, wormwood, hoarhound, catnip and hops, a handful of each; add water, and boil until the strength is extracted. Put the whole into a small or suitable-sized vessel, and add about half a pint of soft soap. Place a narrow piece of board over the vessel or tub, and let the patient sit over it fifteen or twenty minutes, with a blanket thrown around him to retain the steam. The process of steaming must be repeated morning and night, or as often as the pain becomes severe.

This operation in almost every case immediately relieves the patient; even when the parts are so tender they cannot bear the weight of the bed-clothes, it so diminishes the irritability and soreness, that the patient can afterward bear considerable pressure upon the swelling. In a word, it usually affords relief in the most painful stage of the disease; it not only allays pain, but promotes either resolution or suppuration.

As soon as the patient has been thus steamed, apply a poultice made of equal parts of powdered linseed and elm-bark, mixed to form a proper consistence; let this be applied tepid; about a tablespoonful of sweet-oil may be added, which is cooling, emollient, and prevents it from adhering to the skin. It will be necessary to renew this poultice morning and night. I have, in many cases, found a lye-poultice excellent, where the other did not agree with the patient.

Every time either poultice is applied, let the discutient ointment be rubbed on the swelling.

It will be necessary, for the sake of convenience, as well as to secure the dressings, to use a bandage made by passing a piece of linen, of a suitable width, just above the hips, and fastened on the right or left side of the abdomen with tapes or buttons; a piece fastened to this behind, and brought between the legs, and secured to the bandage around the body, likewise in front, or before, in the same manner. This will effectually secure the poultice and the other dressings.

With this treatment the inflammation will gradually subside, and matter or an abscess will form, which is usually very large and extensive. This may be known by a subsidence of the pain, redness, and the tumor becoming softer, yielding readily upon pressure. Where the patient is willing to wait, let the abscess burst spontaneously or by the aid of the poultice, in which case there appears to be less callus or hardness remaining, and the sinus is not so liable to close.

Having, then, arrived at a stage of the disease in which suppuration has taken place, there must be a variation in the treatment. I mean after the matter has been well evacuated from the abscess, and the pain, swelling and inflammatory symptoms have subsided; for, until this has taken place, the same treatment must be continued, especially the poultice.

It sometimes happens that even a real, fistulous abscess will heal up after a short time, but generally there remains an indurated tumor, in the center of which there is a small hole, orifice or sinus, from which the matter discharges, and which, extending a greater or less distance from the verge of the anus, communicates with it lower or higher up, or at a greater or less distance from the end of the bowel or anus.

The act of keeping open the fistula may be accomplished by introducing a suitable-sized tent, made of the ravelings of linen or thread; or a piece of twine will answer. It should be made small or pointed at one end, similar to a probe, and drawn through beeswax, or some plaster of a proper consistence, in order to stiffen it; and then it is to be introduced as far up the sinus as possible, and a very small portion of it left out; after which a little lint should be placed on the end of it, and a plaster of the black salve applied. The mode of preparing this salve is, as follows: Take of pitch-tar, 3 ounces; extract of hyoscyamus, 2 drachms; vaseline, 1 ounce; extract of hamamelis, 1 ounce. Warm together stirring all the while until thoroughly mixed—cool and use. On this a compress should be placed, and secured by the bandage, as before-mentioned. The tent should be gradually enlarged, to fill the opening. Generally, when first introduced, they are required to be exceedingly small, and can be introduced only a very short distance; but the orifice becomes more open, and in a short time larger ones can

be used, and they will penetrate to the whole depth of the ulcer; nor will they excite any pain, as many might suppose; for the matter soon renders them soft after their introduction. It is not sufficient to introduce these tents without any application upon them. It is necessary to make use of some stimulating agents; and for this purpose I employ, with decided benefit, an alkali, or preparation of potash. Let lye, made of hickory ashes, boiled down until it is perfectly dry, then be removed from the vessel, pulverized, and kept from the air. A few grains of this must be put upon the tent every time it is introduced, which should be morning and night. It soon alters the nature of the discharge, rendering it more healthy, the fistula less irritable, and also subdues the inflammatory state of the system. It excites sharp pain for a few minutes; but, instead of operating like common caustics, causing greater inflammation, it removes it. The carbonate of potash will answer the purpose, but I think does not act so kindly as the preparation just mentioned. In the next place, the syringe must be resorted to, to aid in curing the complaint; and we may commence by injecting into the sinus a solution of the article just named. About one drachm of the alkali may be dissolved in eight ounces of rain-water, and injected once a day, the strength of it gradually increased, as the patient can bear it. Weak lye answers very well, the strength of which may be gradually increased, as required; there is no danger in using it very concentrated, for the cure is expedited in proportion to its strength; but we must be governed by the feelings of the patient, which will not permit its being used too strong, as it might cause too much pain. This liquid should be injected once or twice a day. Soon after a fistulous abscess breaks, the parts are too irritable to bear the use of the syringe; a little time should be allowed for the soreness to subside; commence with the use of injections, consisting of castile-soap and water. The fistula may be washed twice a day with salt and water. This course must be pursued as long as the fistula continues to grow better; although such is the insidious nature of the complaint, that, after the painful symptoms have subsided, the patient is unable to decide whether he is improving or not, although the callous or hardened edges of the fistula are daily diminishing.

The best and only sure criterion to ascertain whether the morbid or diseased organization has been removed, is the quantity of matter discharged when no dressings are applied; and, therefore, when the fistula becomes pitted, or depressed around the edges, and the hardness in a measure gone, a trial may be made to heal it by omitting the use of the tents and the syringe. The plaster or salve should only be applied, which will enable the practitioner to decide whether the discharge arises from the fistula itself, or whether it arises from the stimulating properties of the agents or medicines made use of; for *it may be said in a word, that the principle of cure depends upon the act of making and keeping up a permanent issue or drain upon the fistula, until the morbid nature of it is*

so destroyed that the edges of the sinus or opening may agglutinate and heal. In general, however, after these applications have been used a sufficient length of time, the discharge of matter will gradually diminish, and the fistula will close in spite of the stimulus arising from the dressings.

It is always best to wait, before dressing the fistula, till there has been an evacuation from the bowels, provided this generally takes place daily, and in the morning, as the applications are sometimes disturbed by the passages.

The parts should first be well washed and cleansed with soap and water, to which a little spirits should be added.

This mode of treating fistula, in particular, has excited much attention, and has induced some physicians who have had the most undubitable evidence of its efficacy and superiority to publish it to the world.

As an alterative remedy for the blood, some practitioners recommend very highly, during the treatment, the free use of century plant and burdock-seed, or either one of them, made into a strong decoction.

Accessory Means—The early opening of any swelling which indicates the presence of an abscess in the vicinity of the anus. A poultice before and after the incision may be necessary. Subsequently, frequent washings with tepid water afford comfort to the patient, prevent the extension of the disease, and favor a radical cure. Nourishing, digestible diet, abundance of fresh air, and generally good hygienic conditions, are necessary to increase the reparative powers of the system.

"Fissure of the Anus is a very troublesome complaint, frequently being very obstinate in its character, and affecting the general health. It may be known by fissures or cracks around the anus, of various lengths, which are very irritable and painful, and discharge a thin fluid. The edges of these cracks gradually become hard. The treatment will be similar to that for fistula; apply fomentations to relieve the tenderness of the part, after which sprinkle the vegetable caustic along the cracks, and cover with an ointment spread on lint, made of extract of belladonna one drachm, rubbed well with spermaceti, seven drachms."— *Prof. King.*

PROLAPSUS ANI—FALLING OF THE BOWEL.

This is a protrusion of the mucous lining of the rectum through the anal orifice, after the action of the bowel, which goes back of itself, or is easily replaced. In severe cases, the protrusion takes place from walking, riding or even too long standing, and can only be replaced with difficulty. In complicated cases, a portion of the muscular structure of the rectum is protruded with the mucous membrane.

Causes—Long-continued constipation or diarrhea; purga-

tives; straining excited by the irritation of worms, or of stone in the bladder; laxity and delicacy of constitution. Although not confined to them, it is most frequent in children.

Treatment—To return the protruded portion of the mucous membrane, let the person lie on his face, with the hips elevated higher than the shoulders, oil a soft piece of muslin three or four inches square with sweet oil, cream or lard, place it over the protruded part, hold it lightly but smoothly over the tumor with the fingers of one hand, and pass the forefinger of the other hand directly into the center of the tumor, in the direction of the anus, carrying the muslin before the finger through the anus, until the entire protruded part has been returned; then hold the finger there for a minute or two. and afterward gently withdraw it, together with the muslin. Sometimes simply pressing the flesh on each side, over the tumor, with the hips elevated, will cause the bowel to return; this can be tried first. Patients who are much troubled with this difficulty, should be required to have their evacuations in a position half-way between sitting and standing, and should avoid straining.

There are cases, when these protruded parts, or tumors, are too much swollen, or too tender to be handled for the purpose of returning them. In such cases, no further attempts must be made until means have been made use of to reduce inflammation. Astringent washes may first be tried, if the pain and swelling be not too great. Take white-oak bark, bruise and make a strong decoction, and to every pint add a teaspoonful of pulverized alum; let the part be frequently washed with this.

After these have been applied, should it still continue irreducible, apply the slippery-elm bark poultice, to be secured by a bandage. This will soon lessen the inflammation so that the intestine can be replaced.

If it proceeds from a relaxed state of the bowels, medicines must be given for that complaint. The diet should be such as to keep the bowels in a soluble state, as rye or brown bread, mush or hasty pudding and molasses.

In managing difficulties of this kind, be careful that some ignorant pretender does not—as has happened—apply the ligature or the knife, and cut off the tumor instead of returning it into the body.

The treatment, in order to cure the difficulty, must consist mainly of astringent applications and injections.

Therefore, after returning the bowel, inject into the rectum a strong decoction of oak-bark or geranium-root, and then apply a compress, first wetting it also with the decoction, and have the injection retained as long as it can be borne. Powdered alum may be dissolved in the decoction, a tablespoonful to a pint of the liquid and in case of much soreness or any ulceration, a teaspoonful of

copperas. Cold water injections occasionally, will also be good, if there is inflammation.

Care should be exercised to keep the bowels relaxed by proper food, fruit, etc., and by careful attention at the time of having an operation of the bowels. In severe cases, it becomes necessary to retain the bowel in place by a pad or compress, held on by a bandage.

ACHING AND SORENESS OF THE FEET—EXHAUSTION OF THE MUSCLES.

Remedies—If the feet be swollen or blistered, or the ankles ache after walking, a warm foot-bath may be used, to which a teaspoonful of the strong tincture of arnica has been added; the relief afforded is often immediate and permanent. If the hands or wrists ache from excessive or unaccustomed exertion, they may be bathed in about a pint of water to which twenty or thirty drops of arnica has been added. If necessary, in one or two hours the application may be repeated. In muscular fatigue from long-continued or severe exertion, affecting the hips, thighs, etc., a hip-bath, to which a drachm of the strong tincture of arnica has been added, is an excellent remedy. Whatever kind of bath is used, and to whatever part applied, it should be warm if used in the evening or soon after exertion, but cold or tepid in the morning.

If at any time the arnica cannot be had, use the water alone, for it is excellent. Salt and water are used with much advantage to the feet after long walking.

When suffering from fatigue, a light repast only should be taken; a full heavy meal might occasion serious embarrassment to the digestive organs, as they equally suffer from the general weariness.

Wet Feet—When the feet become casually wet, the shoes and stockings should be at once removed, the feet bathed in tepid water and thoroughly dried by considerable friction with a coarse towel. This will prevent colds, coughs, and often more serious diseases.

Blistered Feet—Frequent application of warm water is excellent in these difficulties; and, as for medical applications, there is, perhaps, nothing better than the following: take of Burgundy pitch, two ounces; beeswax, half an ounce; olive oil or vaseline, a tablespoonful; melt together and strain. This, applied to the soles of the feet, affords prompt and permanent relief.

To Prevent the Ill Effects of Fatigue—This is accomplished by the simple application of very warm water.

PERSPIRATION OF THE FEET.

Remedies—1. Washing the feet, once a day in alum-water will, in many cases, effectually cure their excessive perspiration, or repeated soaking in quite warm water. When they perspire profusely during the day, the stockings or socks should be removed several times during the day, and dry ones put on. This practice will conduce more to health than might generally be anticipated.

2. Add a teaspoonful of salicylic acid to a pint of water and bathe the feet in it every night.

TENDER FEET AND OFFENSIVE ODOR.

Remedies—Washing the feet in alum-water will harden them. It tends, also, to remove the offensive odor to which some feet are subject. Or, wash them in a strong decoction of oak-bark. It will have the effect to remove the cause that produces the bad odor, and also to harden the soles of the feet. Simply bathing the feet once a day in pure water is another admirable means for the same purpose, and should be done in such cases every day, for the promotion of health, if there should be no other inducement.

Persons subject to fetid perspiration from the feet, will derive great relief from the use of a moderately strong solution of common soda, as a bath, frequently. Where a genial glow of warmth does not promptly follow the bath and friction in any case, a little bay-rum or whisky should be applied, and the friction continued until the effect is produced.

Add a teaspoonful of salicylic acid, to a pint of water, and bathe the feet in it every night.

Cold Feet—The majority of people pay little attention to the cleanliness of the feet, and yet any square inch of the sole of the foot demands cleanliness, perfect cleanliness, more than any square foot of surface of the body, as far as health is concerned, because the "pores" are much larger there than anywhere else; so large, indeed, that they may be called "sluices" for carrying away the impurities of the system. Hence the bottom of the feet should be well washed and well rubbed every day.—*Hall.*

For Aching Feet—Soak for ten minutes in very hot brine, and wipe dry, without washing off in clear water. This will afford speedy relief.

GRAVEL—STONE IN THE BLADDER.

Causes—The materials which form gravel and stone are undoubtedly contained in what we eat and drink. They contain sand enough, either in a native state or combined in other substances, to form those hard and gritty bodies which we call gravel or stone.

When the system is healthy, these ingredients are carried off by the proper secretions of the body, but when there is debility of any organ, more especially of the kidneys, they become incapable of expelling such sandy substances, and these consequently lodge in the kidneys, urinary passages or bladder. They generally pass off without occasioning much disturbance or disease; but when there is an excess of urine or other acid these particles unite chemically until they form a stone. This stone, if deposited in the kidneys or urinary passages, may give rise to inflammation of these organs; or, if lodged in the bladder, it may occasion all the symptoms of stone.

Symptoms—A fine gravel is sometimes discharged with the urine, causing much pain and irritation, and earthy substances not unfrequently form in the kidneys from the urine, pass to the bladder, and are either discharged in the urine, or remain to become the nucleus of stone. Sometimes, before the stone leaves the kidneys, it becomes too large to pass easily to the bladder, and if it is rough, its passage causes great irritation and the most terrible spasmodic pains. The attack usually begins suddenly, and during apparent health. A severe pain is felt in the region of the kidney, shooting to the groin, testicle or thigh, and extending down the abdomen, from the kidney to the bladder, in the direction of the passage. Sometimes, the greatest pain is felt about the hip. It comes in severe paroxysms, is often accompanied by nausea and vomiting, and sometimes by a small and feeble pulse, pale complexion and profuse sweat. Frequent inclination to pass urine, is another symptom which is commonly present. The patient often changes his position, without obtaining the relief which he wishes. Finally, the stones passes into the bladder, and he feels immediate relief. The symptoms return, of course, as often as a stone passes from the kidneys to the bladder; or they may abate for some time, before the stone has passed, and return again.

Remedies—1. *The common garden-beet is a superior remedy in almost any form of this disease.* It should be prepared as follows: Boil a quantity, as if preparing them for the table; then boil the juice to nearly a sirup. Of this, drink from one-half to a teacupful, three times a day. Some of the worst cases have been cured by this remedy, when all other means had failed. It possesses the power of dissolving stone in the bladder.

2. To one quart of soft water, add three teaspoonfuls of powdered borax, and six teaspoonfuls of cream of tartar; when dissolved, give from two to three tablespoonfuls, four or five times a day. *This remedy has cured very grave cases of gravel in a few days, that had resisted medical treatment for years.*

3. Prepare and take, three times a day, an infusion of bird-knot grass, in doses of three or four tablespoonfuls. This was a favorite remedy with the celebrated Dr. Warren, who regarded it as

a specific for the different forms of this disease and who states that he has cured a large number of cases with it.

4. Goose-grass or cleavers (*Galium Aparine*), is said to be a solvent of stone in the bladder. It should be prepared by infusing the leaves slowly for two or three hours, in hot (but not boiling) water. Dose, half a teacupful three times a day.

5. The juice of red onions is said also to be a cure for this disease. Half a teacupful is to be drunk morning and evening, for four or five days.

6. *Mrs. Reed, of San Francisco, was afflicted with gravel for nearly three years. All this time she was being treated by allopathic or eclectic physicians and finally also by a homeopath, who doctored her for five months, then gave her up as incurable.* Her husband, despairing of help from local physicians, was about to take her to the Atlantic sea-coast in the hope of finding some specialist who might benefit her, *when a nurse told her that cream tartar and borax would cure her. The next day after taking the first dose she passed over a tablespoonful of gravel, and in five or six days she was completely cured and has had no symptoms of the trouble since.* Mrs. Reed subsequently gave this remedy to a gentleman who was a victim of gravel, and who was about to have a surgical operation performed at the advice of his doctors. To the great surprise of all he was soon perfectly cured. See page 200.

Accessory Treatment—For spasms, or severe paroxysms of pain, caused by the passage of stone or gravel from the kidneys to the bladder, if convenient, put the patient into a warm bath; if not, wring a sheet out of hot water and wrap it around the body; wet the sheet often.

Uric-Acid Gravel—This form of gravel is frequently characterized by uric acid being passed in the urine, in the shape of fine sand, and sometimes, even, in large crystals. The urine of the person is highly colored after it becomes cool; somewhat of the color of brown sherry. There will be found in it, red, yellow or dirty-white deposits, which adhere to the sides of the vessel. Take, of dwarf-elder bark, marshmallow root, trailing arbutus, and queen-of-the-meadow root, each, one ounce. Put them in a quart of boiling water. Then add two pints of good Holland gin; steep them in a closely-covered vessel for four hours, over a gentle fire; strain, and sweeten to taste with honey. Dose, a wineglassful three times a day, until a complete cure is effected. This is doubtless one of the best remedies yet offered to the public for the cure of this kind of gravel.

In fits of gravel in the kidneys, in which there is no stone in the bladder, the following will generally be effective: Put one pound of quicklime in one and a half gallons of water; of this, drink from one and a half to two pints during the day. After using this water, nearly the same amount of water may be added a second time to the lime, without renewing it.

GIDDINESS—DIZZINESS (Vertigo).

Symptoms—The patient is suddenly seized with a sense of swimming in the head; everything appears to him to turn around; he staggers, and is in danger of falling down. This complaint is attended with very little danger where it arises from hysterics, or any nervous disorder; but when it arises from plethora, or an unnatural quantity of blood in the head, there is danger of apoplexy.

This complaint often proceeds from difficult or obstructed menstruation.

Treatment—It will be necessary, first, to ascertain the cause of the complaint. If it is symptomatic of some other disorder, that must first be removed, in order to cure it. If it comes from dyspepsia, eat lightly; if from costiveness, use coarse food and fruits. (See "Costiveness.") Avoid coffee, ardent spirits and late suppers, and take much exercise. Keep the feet warm, and the head cool, and the bowels regular.

GOITER, OR SWELLED NECK.

A tumor on the fore-part of the neck, formed by an enlargement of the thyroid gland. The progress of the swelling is extremely gradual, and, in general, the skin long retains its natural appearance. It is at first soft; but as it advances in size it acquires a great degree of hardness; the face is subject to frequent flushing; the patient complains of frequent headaches, and likewise of pains shooting through the body of the tumor. It is often accompanied with hysteric affections.

Causes—The inhabitants of Derbyshire, and other mountainous parts of England, and those of the Alps and adjacent mountains on the continent, are peculiarly subject to this disorder. Among the latter it is known by the name of *goitre*, and its origin is ascribed to the use of snow-water. It is considered a scrofulous affection of the gland.

Remedies—1. The seeds of the common nettle are a sovereign remedy for the cure of goiter. Dose, from twelve to fifteen seeds, three times a day.

2. There have recently been reported some cases of this disease cured by means of mechanical pressure. For this purpose an elastic band, or rubber, of from one and a half to two and a half inches in width, is passed around the neck and over the swelling, and gradually tightened, but only to a degree that will neither render it uncomfortable nor cause any fullness of the head.

3. "Collodion," says a recent medical writer, "is the best remedy ever used for 'big-neck,' or goiter. It should be freely applied to the part, and the skin kept completely under its action. It cures mainly by the pressure it produces upon the tumor."

4 Poke-root roasted in ashes, mashed and applied to goiter will often remove it when nothing else will. This is an admirable application also for any tumor.

Formerly, burnt sponge was administered internally for the cure of big-neck. It has been satisfactorily ascertained, however, that the only virtue in the sponge consists in the iodine which it contains, and latterly this remedy has been mainly relied upon for removing goiter. It is used externally. It is best to begin with the ordinary tincture of iodine of the shops, which may be painted over all the enlarged surface with a small brush or sponge—applied twice a day; continue until the surface becomes tender or blistered, when the tincture should be laid aside for an ointment of iodine, slightly weaker than such as is prepared in the shops; this may be prepared by adding one pint of sweet lard to two pints of ointment of iodine, full strength. The ointment in this strength should be rubbed in twice a day. In the meantime, a removal to a dry, bracing atmosphere, and the use of pure water, will contribute to the cure.—*Dr. Howard.*

GOUT.

Causes—Though idleness and intemperance are the principal causes of the gout, yet many other things may contribute to bring on the disorder in those who are not, and to induce a paroxysm in those who are subject to it, as intense study, a too free use of acid liquors, night-watching, grief or uneasiness of mind, an obstruction or defect of any of the customary discharges, as the menses, sweating of the feet, perspiration, etc.

Symptoms—A fit of the gout is generally preceded by indigestion, drowsiness, wind, a slight headache, sickness, and sometimes vomiting. The patient complains of weariness and dejection of spirits, and has often a pain in the limbs, with a sensation as if wind or cold water were passing down the thigh. The appetite is often remarkably keen a day or two before the fit, and there is a slight pain in passing urine, and sometimes an involuntary shedding of tears.

The regular gout generally makes its attack in the spring or beginning of winter, in the following manner: About two or three in the morning, the patient is seized with a pain in his great toe, sometimes in the heel, and at other times in the ankle or calf of the leg. This pain is accompanied with a sensation as if cold water were poured upon the part, which is succeeded by a shivering, with some degree of fever. Afterwards the pain increases, and fixing among the small bones of the foot, the patient feels all the different kinds of torture, as if the part were stretched, burnt, squeezed, gnawed, or torn in pieces, etc. The part at length becomes so exquisitely sensitive that the patient cannot bear to have it touched, or even suffer any person to walk across the room.

The patient is generally in extreme torture for twenty-four hours from the time of the coming on of the fit; he then becomes easier, the part begins to swell, appears red, and is covered with a little moisture. Towards morning he drops asleep, and generally falls into a gentle, soothing sweat. This terminates the first paroxysm, a series of which constitutes a fit of the gout; which is longer or shorter, according to the patient's age, strength, physical conditions, previous habits, the season of the year, and the disposition of the body to this disease.

The patient is always worse toward night and easier in the morning. The paroxysms, however, generally grow milder every day, till at length the disease is carried off by perspiration, by the urine and the other evacuations. In some patients, this happens in a few days; in others, it requires weeks; in some, months to finish the attack.

Remedies—For temporary relief in an attack of gout, there is perhaps nothing better than bathing, or holding the part affected in cold water. Warm water, in which there is dissolved a quantity of saleratus, is also highly recommended. In some cases salt and water may be used, and they are very beneficial. When bathing does not effect the purpose and satisfy the patient, a poultice of jimson leaves, bruised and simmered awhile in weak lye and thickened with wheat-bran or powdered elm-bark, and applied warm, answers an excellent purpose. The principal thing to be done to effect a cure is to change the diet, take plenty of vigorous exercise and abstain from all spirituous liquors.

Coffee has recently been recommended for gout. Dr. Deveran says he had gout for twenty-five years, and coffee cured him.

Should the pain, swelling and heat be great, the foot or part affected may be steamed over bitter herbs. This generally affords the most sudden relief.

Colchicum—This remedy bears an antagonistic relation to gout, and is best administered in comparatively large and frequently repeated doses, as follows: Twenty drops of the strong tincture to a tumblerful of water, giving a dessertspoonful every twenty, thirty, or sixty minutes, according to the intensity of the pain, and until it subsides. *Colchicum* is a drug used both in the new and in the old school of medicine, with this difference: that all the good effects of the remedy are secured by the small doses of the former, without any of the injury the large doses of the latter entail. The following extracts from an author of each school will be read with interest: There is one drug which has an undoubted influence in controlling gouty inflammation, and its action in articular gout (gout of the joints) appears as marked as that of *chinchona bark* in the cure of ague; this remedy is *colchicum.*

Colchicum, as before stated, has a direct, controlling power over the joint-disease, and I cannot call to mind a single instance in which its influence was not well marked.

In adopting this as the remedy for the gouty paroxysms, Homœopathy may do something towards removing those inconveniences which beset its administration in the old school. Probably all the bad effects which result from Allopathic doses may be averted by a reduction of the dose. Should the pain recur in the same, or attack other joints, colchicum should be resumed.

Accessory Measures—During an attack of gout, the affected limb should be raised, so as to favor the free return of blood to the heart; the application of flannels wrung out of hot water, hot bread-and-water poultices, after immersion in hot water, often do good; or the acetic-acid lotion, (or vinegar) before recommended, may be used. In acute attacks the patient should be restricted to farinaceous diet—arrow-root, tapioca, sago, bread, etc., and milk; water, or toast-and-water, *ad libitum*. As the fever-symptoms decline, a more generous diet may be gradually allowed; at the same time the patient should resume daily, moderate, out-of-door exercise as early as he is able.

Healthy action of the skin should be promoted by bathing, warm clothing, bath-brushes, etc., for much excrementitious matter is got rid of in this manner. Friction over the whole surface of the body is extremely useful when exercise cannot be taken. The patient should be well rubbed, with a flesh-brush or with the hands, twice a day.

CHRONIC GOUT.

This is a persistent constitutional affection, characterized by stiffness and swelling of various joints, with deposits of urate of soda.

Symptoms—The deposits in the joints constitute the distinguishing feature; chronic stiffness and swelling of various joints, with pain, are considered as cases of chronic rheumatism or gout.

Treatment of Gouty Deposits—The following simple method Dr. Broadbent has found effectual: Wrap the hands in linen or flannel dripping with water, warm or cold, and inclose them in a water-proof bag all night. This very speedily removes inflammatory stiffness, and little by little, the concretions of urate of soda soften, frequently disappearing entirely. Dr. Broadbent, has, in other cases, applied alkaline solutions, and water acidulated with nitric acid to one hand, while water alone has been applied to the other, and has come to the conclusion that water is the agent in the process of removal. Urate of soda is soluble in a sufficient quantity of water. When once deposited around the joints it is extra-vascular, and not readily acted on through the blood, but water being absorbed by the skin effects its solution; when dissolved it is carried away.

Tincture colchicum.....1 tablespoonful.
Pearlash.....1 teaspoonful.
Dissolve in one pint of water. Dose, a teaspoonful every two hours. This is a perfect cure. You need not look further.

GANGLION, OR WEEPING SINEW.

A ganglion is a small swelling, composed of toughish sacs, formed on one or more of the tendons of the back of the wrists, rarely larger than a child's marble, generally smaller, attended with weakness, but free from pain.

Causes—Excessive action of the tendon, or of the extensor muscle leading to the tendon to which the ganglion is attached. Dr. Skey states that he has treated many cases in the persons of violin-players, in whom the malady has been confined to the left hand, the right, or bow-hand, being free; he states also that ganglions are often seen in pianists who practice many hours daily. But they are not confined exclusively to this class of persons.

Remedies—The best plan is to adapt and bind a piece of lead upon the tumor, so as to make a firm and continued compression. This may be aided by stimulating liniments, being careful not to produce too much irritation in the tumor. Sometimes this difficulty has been cured by painting the tumor with tincture of iodine, twice a day, and covering it with oiled silk, and then firmly compressing it with a bandage. It usually requires several months to effect a cure. In those cases where the above means fail after having been perseveringly tried, it will need the aid of the surgeon to remove the swelling by the knife.

2. An English author says that the method he recommends to be first adopted is the internal and external use of benzoic acid. Dissolve half a teacupful in a pint of water, and take a tablespoonful of this three times a day. For external use, take benzoic acid, five grains; glycerine-cerate, one ounce. This is to be well rubbed into the part, morning and night.

3. Put a blister plaster as large as a quarter of a dollar on the affected part, and let it draw until a blister is raised; prick it and let out the water, then dress with any simple salve.

GLEET, GONORRHEA (Clap).

This is an inflammation of the urethra, or external urinary passage, and is generally occasioned by an impure connection; although a disease of a similar character may arise from having connection with a healthy woman during menstruation; and it is sometimes produced by leucorrhea in the female. Where the disease is contagious, the symptoms follow exposure in from two or three

days, to as many weeks, though in most instances the time is about one week.

Symptoms—The first sign is a tickling or itching sensation at the mouth of the urinary passage, soon followed by a frequent inclination to make water. In a short time, swelling and redness appear, and the passage of urine becomes painful. As the case progresses, a yellowish-white discharge appears, becomes sometimes greenish or bloody, and often quite copious. Severe scalding or burning pains attend the passage of the urine, which is scanty, and comes in a small stream. The inflammation ascends the urethra, and sometimes reaches the bladder. The passage is swollen and feels hard, and the patient is sometimes troubled, especially at night, with painful erections; the organ being prevented from becoming entirely erect by the inflammation. More or less headache, fever and restlessness generally attend the disease.

Under careful and skillful treatment, the acute symptoms usually begin to abate in a few days; though they may last a week or ten days, if proper care is not used. It is often cured in from a few days to six weeks; but in scrofulous constitutions, or where it has been improperly treated, the discharge becomes chronic, and is called gleet, which results from neglect and unskillful agencies, and is a tedious, dreaded disease. Sometimes the testicles become swollen and inflamed, and the passages closed; the case is then serious.

Females do not suffer, as a rule, as severely as males, though, should the inflammation extend up the vagina to the uterus, or womb, it may be very severe.

Preparatory Treatment—Sexual intercourse should never be indulged until the patient is entirely cured. He should use no animal food, alcoholic or fermented liquors, coffee, green tea, spices, or other stimulating condiments; and the stiller he keeps the more certain will be the cure, as exercise aggravates the disease. Lying down is a preferable position.

In the beginning, wrap the parts in a cotton or linen cloth, wrung out of cold water, surrounding the wet cloth with several thicknesses of dry flannel; wet the cloth every five or six hours.

Simple Means of Preventing.—*If it is desirable to know how to cure these, the venereal diseases, it is much more important to know how to prevent them, as hereinafter explained.*

Remedies.—*Any person can cure himself in one week by the use of saltpetre alone, as given below. This simple but effective remedy was introduced to the medical profession by Dr. Henry of London, and has since been used with great success.* Take of saltpetre a piece the size of a common bean, dissolve in two tablespoonfuls of water, take in one dose three times daily. Recent cases will be cured in one week; old cases in two or three weeks.

The following remedy will effect a radical cure in any case of gonorrhea not complicated with syphilis or pox. It is the Indian

hemp (*Cannabis Sativa*). It can be procured at the drug-stores. Begin with five drops of the tincture, night and morning, and, in severe cases or in those that have been mismanaged, this dose may be gradually increased to fifteen drops, night and morning.

3. The tincture of blue gum (*Eucalyptus*) will cure in six to eight days, if used in the first stages. Add thirty drops to a half-pint of water. Of this use two tablespoonfuls, as an injection, immediately after urinating; in chronic cases three times a day. For females, half a teacupful three times a day. But, before using it, warm water should be employed for cleansing purposes.

Equal parts of the fluid extract of yerba reuma and water used as an injection, four times a day, make a remedy that has proven efficient. It is to be used in quantities as indicated in the previous remedy. The tinctures of yerba reuma and eucalyptus can be procured in all drug-stores.

4. Swamp milk-weed is a favorite remedy with many physicians, (*Asclepias Incarnata*). It is also known by the names of white Indian-hemp, swamp and silk-weed. Dose of the tincture, two teaspoonfuls, three times a day, before each meal.

5. In the report of the medical statistics of the United States Army, Assistant Surgeon Hammond, in his report on the diseases of Socorro, New Mexico, mentions a new remedy for gonorrhea—the Exhedra Occidentalis—called by the natives popilote. Take two ounces of the branches, cut into small pieces, and simmer in a pint of hot water, in a closed vessel for two hours, and then strain. A pint of the infusion may be drunk during the day. It acts with surprising promptness, and is an efficient and valuable medicine. The shrub is an evergreen, and grows in great profusion throughout the country.

Should any person be so situated at any time that he cannot readily obtain these remedies, the following are often very effective:

6. Drink freely of a strong tea made of the tops and roots of the malva, or cheese-weed, three or four times a day. This is said to be a great remedy among the Spanish people for the cure of this disease.

7. Take five-drop doses of a strong tincture of golden seal, three times a day. It is also used as an injection. Or a strong decoction of the root may be used in place of the tincture. This remedy is very effective in the first stages of this disease.

8. The celebrated Dr. Peterson's prescription is the following: Liquid chloride of zinc, from twenty-four to thirty-six drops; soft water, eight tablespoonfuls. Two injections a day will generally be sufficient to effect a radical cure of gonorrhea; the first injections are almost always followed by more or less swelling of the parts, but this should not prevent the patient from continuing their use.

Chordee and Scalding of the Urine—These are often accompanying and very distressing affections. For their relief or mitigation, the patient should use, in connection with the above

remedies, the tincture of Spanish flies (*Cantharides*) in doses of one drop in a teaspoonful of water, three or four times a day. At the same time the diseased parts should be frequently bathed in cold or warm water. Sometimes the one, and sometimes the other, will be most effective in affording relief.

Half an ounce of camphor water at night, or thirty grains of bromide of potass in water, will entirely relieve chordee.

In the treatment of gonorrhea with any remedies, it is to be particularly noted, and carefully remembered, that, unless the directions given under "Preparatory Treatment," mentioned above, are strictly complied with and diligently carried out, a cure is not and cannot be guaranteed. Cases have been known in which a cure had been almost effected, when a single cup of coffee, unwisely taken, brought on a return of the discharge, and the other symptoms were as severe as at the first.

Dr. Thomas Evans, of London, uses very frequent and very weak injections of the sulphate of zinc, one grain to the ounce (two tablespoonfuls) of water, to be still further reduced if pain is felt. They are simple but efficacious. He repeats them every half hour during the day. Slight cases are cured in twenty-four hours; severe cases in three or four days.

Alum injections are exclusively used byDr. H. Collis in all stages of gonorrhea. "In the most acute form, the patient," he says, is directed to pour a small jug of cold water on the parts, and immediately inject a syringeful of alum-solution, one-half grain to an ounce of water (two tablespoonfuls.) The first day the injection is to be repeated every half-hour; at night, as often as the patient wakes. In old cases, the injection may be increased to one drachm of alum in eight ounces (half a pint) of water, three or four times a day.

It will be a satisfaction to the unfortunate victims of this malady to know that there are simple remedies, such as the above, that will cure this disease, but the safer and better plan is to practice prevention, by never exposing one's self to the disease; though it has been known to have been contracted, unsuspectingly and incautiously in water-closets.

Many of the pernicious remedies that are administered in the treatment of this disease are worse than none; for they result in what is sometimes termed suppressed gonorrhea, and the patient is longer in getting well than if he had taken no medicine. During the treatment of the disease, the patient should exercise the greatest care possible in avoiding excesses of all kinds.

As a prevention against contagion, apply sweet oil to the parts before intercourse and immediately wash with equal parts of whiskey or brandy and water. A wash of strong alum water is pronounced effective, and on the following morning take two drops of turpentine.

When traveling, never sit on a privy seat so as to allow it to

come in contact with the skin. Spread a paper over it.

Prevention—These diseases are caused by their own distinct germ or microbe, and the problem is to prevent that germ from being transferred from an affected person to an unaffected one. A man suffering from so-called strain, or a woman with the whites, or leucorrhea, should not attempt intercourse until after an examination shows freedom from infection.

As to applications to be used externally, before cohabitation, the medical departments of the armies and navies of many nations issue to the soldiers and sailors a safety packet containing as its most essential ingredient an ointment composed of: Calomel, ten grains; Lanoline, two drams; Cocoa-butter, four drams. Directions: Rub together thoroughly.

This is applied by means of a container which is a collapsible metal tube with a nozzle for inserting into the urethra. A small amount is squeezed into the urethra and some is applied to the exterior of the organ also. When properly done it destroys the germs in a short time.

CRABS

Causes—It is usually due to uncleanliness and coming in contact with uncleanly persons who are affected. Often the parasites can be seen clinging to the hair about the genitals.

Symptoms—The attention of the patient is attracted to the parts by intense itching. Together with this there may also be present shooting pains from the irritation of the skin.

Treatment—Cleanse the parts carefully with an antiseptic soap, moisten with tincture of larkspur, and use stearate of zinc as a dusting powder to prevent chafing. If this does not prove effective, then the part should be shaved and blue ointment applied day and night.

GUM-BOIL

(Abscessus Alveolaris)

This is a small abscess commencing in the socket of a tooth and bursting through the gum or even through the cheek.

Causes—Usually, the irritation from a decayed tooth. A cold may excite inflammation of the covering of the teeth, the diseased products of which are thus discharged.

Symptoms—Pain in a tooth, spreading over a portion of the jaw, with heat, throbbing, swelling, and the formation of an abscess, which should be opened at once. It may heal by resolution; or it may burst into the mouth, or even penetrate the cheek. The sufferings are sometimes great, worse at night, and incessant till swelling has taken place, when they usually abate. There is frequently some fever.

Accessory Treatment—The application of a roasted fig, as hot as can be borne, to the inflamed gum, will speedily give relief. If the swelling be very extensive, and there are signs of the abscess coming through the cheek, a poultice of linseed-meal should be applied till suppuration is established, and continued for a short time afterwards. In some cases prompt relief may be obtained by lancing the swelling as soon as its existence is ascertained. Extraction of the decayed tooth is often necessary.

HICCOUGH (Singultus).

The hiccough is a spasmodic or convulsive affection of the stomach and midriff, arising from any cause that irritates their nervous fibres.

It may proceed from excess in eating or drinking; from a hurt of the stomach; poisons; inflammations or hard tumors of the stomach, intestines, bladder, midriff, or the rest of the viscera. In gangrenes, acute and malignant fevers, a hiccough is often the forerunner of death.

Remedies—1. A little sweetened spirits of camphor will generally remove this difficulty. Often a drink of cold water or a glass of cold soda-water, or ice-cream, will accomplish the same purpose.

2. It may be relieved generally by a sudden fright or surprise, or any sudden application of cold; also by drinking cold water slowly, eating a small piece of ice, taking a pinch of snuff, or anything that excites coughing. Or, take one teaspoonful of common vinegar.

3. When it is caused by a sour stomach, lime-water in wineglassful doses, or soda, or magnesia, will control most cases. There are cases though, in which almost every means fail, and one trial after another will have to be made in order to suppress it. In low forms of fever, it is a bad symptom, and must be looked upon with dread.

The simplest remedy for hiccoughs in infants is to apply the child to the breast for a few moments. If this does not stop them a little anise-seed tea will usually cure.

SICK HEADACHE.

This has received its name from the constant nausea, or sickness of the stomach, which attends the pain in the head.

Symptoms—This headache is apt to begin in the morning, on waking from a deep sleep, or after sleeping in a close room, and when some irregularity of diet has been committed on the several preceding days. At first there is an oppressive feeling in the head, which gradually increases into a severe, heavy pain in the temples, frequently attended by a sense of fullness and tenderness in one eye and extending across the forehead. There is apt to be an unpleasant taste in the mouth, offensive breath and the tongue covered with a yellowish white fur, accompanied with nausea and vomiting. Attacks of sick headache may occur every few days, or at much longer intervals. In the case of females, it frequently occurs at the menstrual period, and sometimes accompanies menstrual irregularities.

Causes—This disease is frequently occasioned by deranged or unhealthy conditions of the stomach or liver, brought on by excessive eating, drinking, debaucheries, etc. Drinking hot tea is often the cause of violent headache. More than one-fourth of the female portion of mankind have experienced sick headache, in a greater or less degree, ever since saleratus was introduced and used as an ingredient in the making of bread and pastries. Therefore, the more nearly it is dispensed with, the less of this affection there will be, as well as some other maladies.

Remedies—1. If the tongue be coated white, begin the treatment by adding one-half teaspoonful of cooking-soda to a tumbler of cold water, and when dissolved, drink one-fourth of it every hour until it is all taken, or dissolve one teaspoonful of powdered charcoal in a tumbler of milk, every two hours. This will answer the same purpose, and, in some cases, is preferable. The acidity of the stomach will be thus overcome and prepared for curative treatment. After two doses of either of the above have been taken, take one-half teaspoonful of powdered guarana, in a little water, every hour, until two or three doses have been taken. The first dose often stops the headache in thirty minutes, after which about one-fourth of a teaspoonful should be taken once, daily, for two or three weeks, to prevent a return; and if, during the time, the tongue becomes coated white, the soda or charcoal should be taken once a day until it returns to its natural color. This is a new remedy and may be procured at almost any drug store. The elixir of guarana is more pleasant to take than that in the form of a powder. Dose, half a teaspoonful or over every hour, until three or four doses are taken, after which take it once a day.

This is a sure remedy for almost any case of sick headache. This disease was formerly considered incurable in most instances, but now, with this new remedy, one may expect a cure.

2. When there are strong symptoms of sick headache, commence drinking lemon-water, prepared in the following manner: To two gills of tepid water, add one tablespoonful of the fresh juice of lemon, and drink this quantity every fifteen minutes, for one hour. Persons of strong constitution may add more of the acid, or drink half as much more water. This will produce a very salutary effect, and check the attack or relieve it very materially.

Canadian Cure for Sick Headache—*Prof. Sanborn of Montreal states that he has found hops to be an unfailing cure for sick headache, and found the same result with all others to whom he prescribed it.*

It is to be used as follows: Make a tea, and of that take a small teacupful every three hours. During a severe attack, every two hours. Drink it hot.

5. Some forms of headache are readily cured by the magnetic powers of another person, or by certain manipulations with which most people are familiar, namely, both of the hands are to be placed on the head of the patient, then bring them down to the shoulders, slanting them away from the body; then, on returning them to the top of the head, let them pass at a greater distance from the body than when they passed down, and successively repeat for a short time.

6. Another very excellent means of relieving the head is to plunge the feet into a bath of hot water, into which a quantity of mustard or ashes has been stirred, and retain them there for twenty or thirty minutes, and apply a mustard plaster on the nape of the neck.

7. Drink from one-third to one-half a teacupful of hot water, hot as can be borne, every twenty or twenty-five minutes. This is a favorite remedy for relieving sick headache, with some ladies.

8. An efficient means for the cure of this distressing affection is the sulphate of nickel. For the use of this medicine the reader is referred to "Nervous Sick Headache."

9. For headache arising from difficult or suppressed menstruation, bathe the feet in warm water and use a hip or warm bath. This will remove it without any other medicine.

10. A teaspoonful of bromide of potash in a small glass of cold water will generally cure the worst cases.

11. Saturate a cloth with the tincture of witch-hazel (*hamamelis*), and apply to the part of the head where the pain is located; renew when the cloth becomes dry. Headache that is produced by an excessive flow of blood to the head, or is attended with the same, is usually cured with this remedy.

NERVOUS SICK HEADACHE.

Predisposing Causes—A peculiar nervous temperament, which is often hereditary and runs in families. The excessive use

of tea or coffee is in some cases a predisposing cause; also unhealthy occupations, sewage-gases, malaria, the employment of arsenic in wall papers, or in articles of dress, a sedentary, monotonous life, with the use of alcoholic beverages, and probably other varying causes. Whatever produces a powerful impression on the nervous system of a person thus predisposed may develop an attack; as fright, loud noises, exposure to a hot sun, a strong wind, or extremes of temperature. Moreover, mental or bodily fatigue, worry, the pressure of business or family anxieties, deprivation of sleep or food, prolonged nursing, and other causes of nervous exhaustion, are invariably succeeded by nervous headache. True sick headache, then, may occur in the most abstemious persons, and is not at all necessarily connected with a disordered digestion.

Symptoms—They usually commence on rising in the morning, the patient being pale, dark around the eyes, with contracted pupils, and looking and feeling extremely ill. Giddiness, swimming in the head, throbbing of the temples, and stupefying, agonizing, or deeply seated headache, often limited to one spot on the side of the head, on the forehead, or over the eyes, and increased by movement, noise, strong light, and any kind of mental disturbance. The gastric symptoms—clammy mouth, nausea and vomiting, or more generally straining to vomit—are secondary rather than primary, having no necessary connection with any impropriety of diet.

Remedies—1. A permanent cure of this disease has often been effected by abandoning the use of all exciting drinks, such as tea, coffee, and spirituous liquors, and substituting the lemon-water, which is prescribed on another page for sick headache. When the pain is severe, a compress of warm water, placed upon the stomach and abdomen, and frequently changed, will generally relieve it.

2. When there are strong symptoms of an attack of nervous headache, drink freely, for three or four hours, of a strong decoction of scull-cap. This will often effect a cure.

3. The following is a new remedy, and one that is reported to be of superior efficacy in headache. In fact, it is regarded as a specific in the cure of this disease. It is the sulphate of nickel, and may be procured at the drug-stores. One grain of it is to be rubbed, or triturated, in a mortar with nine grains of the sugar of milk. If this cannot be obtained, use loaf-sugar. When these are well ground together, the medicine is ready for use. The dose is one or two grains. One dose is often sufficient to relieve the paroxysm. If it does not, it may be repeated every one or two hours, until the pain ceases. Cases of frequently-recurring headache, or headache coming on after certain intervals, are reported, which were promptly and permanently cured by this medicine.

4. A very excellent remedy for this affection, especially when occurring at the monthly period, is the tincture of black cohosh (*Cimicifuga Racemosa*). Add ten drops to half a tumbler of

water, and take a dessert-spoonful every half-hour, or hour, until relief is obtained.

5. I frequently prescribe the milk-weed, in nervous headache, and find it the promptest remedy I ever administered. This plant is also known as bitter-root (*Apocynum Androsæmifolium*). The dose of the fluid extract, is ten to twenty drops (of the saturated tincture, fifteen to twenty-five drops) repeated every three or four hours.— *Prof. Goss.*

6. Soak the feet thoroughly in hot mustard. Take fifteen grains of bromide of potash in one half glass of water, and relief is generally afforded.

Accessory Treatment—The patient should lie down in a quiet room, with a subdued light, and be kept from every kind of disturbance, so that, if possible, sleep may afford relief. Rest and sleep are the most natural restorers. Hot tea or coffee, which acts on the nervous system, often gives immediate relief, though the excessive use of these beverages predisposes to subsequent attacks. If pressure relieve, the wet bandage should be tightly bound round the head. Dr. Wilks says, "This is an admirable means of procuring temporary relief."

During an attack, unless it is prolonged, entire abstinence from food is necessary; at least, only the slightest nourishment, milk and lime-water, plain soup, etc., should be given; copious draughts of hot water taken early, often mitigate or shorten an attack.

Preventive Treatment—The causes which predispose to or excite the paroxysm must be avoided and the tone of the general health improved. For this, the knowledge and tact of the physician are necessary. Tea and coffee, although they sometimes give relief during a paroxysm, render the nervous system increasingly susceptible to the attacks, and we have known several patients enjoy complete immunity from the attacks by abandoning these beverages. The general regulation of the diet, the adoption of out-of-door recreation, and the general hygienic measures will prevent, or very much relieve, this affection. In some, when attacks frequently recur, change of occupation, scene and climate, are necessary to break up the tendency. The climate selected should be dry and bracing, and walking or horseback exercise taken daily.

PALPITATION OF THE HEART.

This often arises from mental emotions, nervousness, indigestion or debility; though frequently produced by disease of the heart, or some other organ of the body.

Treatment—When the palpitation is owing to disease of the heart, relief is all that can be expected, unless the disease be cured; and the same may be said, when it is owing to dyspepsia or other affections.

Remedies—1. A glass of soda-water will often give immediate relief. It is simple, yet is entirely effective. It should be prepared with a little soda and citric or tartaric acid, and drunk while "foaming." These articles should be dissolved in separate glasses. Sweeten the acid, if desired, then pour together.

2. In a majority of cases, perhaps, a fit of palpitation may be arrested by the person lying down on a bed, on his back, and filling the lungs with air, so as to expand the chest as much as possible. A few full inhalations, allowing the breath to escape gradually, will generally be sufficient to quiet the palpitation.

3. Some medical writers say, "For the immediate relief of palpitation of the heart, there is nothing that will compare with the tincture of cactus grandiflorus, given in three drop doses, every three hours. Where the cactus cannot be obtained the following has always served a good purpose: Take a handful of peach leaves or twigs, bruise them well, and cover them well with cold water. Take this in tablespoonful doses, every two or three hours. The bark of the wild cherry, prepared in the same way, acts, in this affection. precisely like the peach, and may be used in its stead."

Accessory Treatment—The patient must avoid mental excitement, stimulants, coffee, sleeping-draughts, indigestible food, etc. Pure air; cold water used internally and externally; regular, moderate exercise in the open air, short of inducing fatigue; a contented and tranquil disposition, with light and nourishing diet, are excellent auxiliaries in the treatment of this affection.

The excessive use of tea is one of the common causes of irregularities of the heart's action, in weak or nervous women; in some persons, palpitation follows tobacco smoking, as it may also result from the administration of other injurious agents. In such cases, of course, a cure can only be expected after the discontinuance of the noxious substance.

NETTLE RASH, OR HIVES.

This is an eruption of little solid eminences, roundish or oblong, pale in the centre and red at the circumference, attended with smarting and itching, as though the parts had been stung by nettles —hence the popular name.

Symptoms—Towards evening, or when getting warm in bed, the patient feels an intolerable itching on the neck, arms or body, and on scratching soon discovers large pustules (the eruption rapidly enlarging under the irritation of scratching), which burn, tingle or smart, and prove the source of great discomfort.

Causes—The acute form, as seen in children, is generally due to indigestion or eating particular articles of food, as bitter almonds, shell-fish, oatmeal, etc. It may also be induced by a chill, or changes in the weather.

Remedies—1. A tincture of the common nettle, taken in five-drop doses four or five times a day, will cure any case of nettle-rash; a strong decoction of the herb is almost equal to the tincture.

2. Rub the part with buckwheat-flour, and it will allay the itching, and the hives will generally disappear soon. Common wheat flour will often answer the same purpose.

3. As an internal remedy, sassafras-tea, drunk freely, is often beneficial in promoting perspiration, and thus aids in quieting the irritation of the skin, and relieving the patient. Saffron tea is also employed for a similar purpose. In this, as well as in all other skin-diseases, the greatest caution should be exercised in employing, externally, anything moist, especially cold objects, as they are dangerous, tending to "drive in" the rash, and induce serious internal disorders. If any other external applications than those mentioned above are used, bathe the part in hot mustard water, or in hot vinegar and water.

4. *Bathe the parts affected in vinegar, which, if very strong, may be diluted with a little water. This is usually a speedy cure.*

HEART-DISEASE (Angina Pectoris).

Causes—Disease of the heart, or obstruction of the arteries of the heart, in consequence of which the muscular fibres of the heart become impaired. Under such conditions a paroxysm may be brought on by over-exertion, flatulent distention of the stomach, mental excitement, or even a frightful dream.

Life is too frequently one round of perpetual excitement, business haste or competition, and railway-speed pursuit of pleasure or gain. The demands thus made on the ever-active organ lessen its nutrition, impair its structure and imperil its action.

Symptoms—The patient is seized with a sudden, dreadful pain, which centers in the heart, and extends over more or less of the anterior portion of the chest, up the shoulder and down the arm. There is an agonizing sense of anxiety, faintness, fear of instant death, palpitation and difficulty in breathing, so that if walking, he is compelled to stop and to fix upon the first object that offers support, pale and covered with a clammy perspiration. The paroxysms may terminate in a few minutes, or last for hours, and are liable to recur with increased severity, till at length one proves fatal.

Remedies—1. If the disease is symptomatic of some other, as dropsy of the chest or indigestion, then give medicines accordingly. If it be a primary affection, direct the treatment to the organs affected. Abstain from every exciting cause, as anger, over-exertion, going up or down stairs, everything of a heating nature, etc. A rigid course of diet is necessary. Upon an attack of the disease, take half a teaspoonful of capsicum in a little sweetened water; this

will probably afford immediate relief. Two or four grains of extract of henbane may be given, to relieve the paroxysms, and also a teaspoonful of salt and water. With a view of preventing the recurrence of the disorder, the patient should carefully guard against passion or other emotions of the mind; use a light diet, avoiding everything of a heating nature; and take care never to overload the stomach, or take any kind of exercise immediately after eating. Besides these precautions, he should endeavor to counteract obesity, which has been considered as a predisposing cause; and this is to be effected most safely by a vegetable diet and moderate exercise at proper times.

2. A highly important remedy, in the treatment of this disease, is the cactus grandiflorus, which is regarded as a specific. In functional diseases of the heart it gives prompt relief, and regularly continued, in small doses, finally effects a complete cure. But it cannot be depended upon in organic affections of the heart. The dose of the strong tincture is one to five drops, every one, two or three hours, according to the urgency of the symptoms. In that state of nervous irritation called "nervousness," it exerts a very kindly influence, quieting nervous sensibility, lessening the pain and procuring rest.

3. Prof. E. M. Hale says, "The garden nightshade (*Solanum Nigrum*) often acts admirably." The dose is from half a drop to a drop, every two or three hours. If a half-drop dose is desired, put one drop into two teaspoonfuls of water, and stir well together, and, of this mixture, give a teaspoonful for a dose. *The tincture of foxglove* (*Digitalis*) *is a standard remedy in this disease* Add five drops to ten teaspoonfuls of water; mix well, and give in teaspoonful doses, every two or four hours, according to the severity of the attack Where there is severe pain and an intermittent pulse, the action of this remedy may be relied on, if its use be persisted in for several weeks.

Accessory Measures—Organic affections of the heart may be greatly relieved, and life considerably prolonged, by judicious treatment. Professional judgment and experience are, however, specially necessary. For affections of the heart, consequent on over-exertion and insufficient rest, arnica is an excellent remedy given in two or three-drop doses on sugar, three times a day, and in severe cases, every one or two hours.

Cold baths should never be taken by persons with this disease, nor by those suffering from active inflammation of any of the organs of the body. In skin diseases it is usually inadmissible, particularly in those where a sudden driving-in of the erruption may cause internal affections. Persons very much debilitated, or those who do not possess sufficient powers of reaction, must employ it with great caution, if at all. In infancy and old age, it is of less benefit than in youth and middle life.

The patient must not use tobacco when troubled with this disease, or any affection of the heart, if he wishes to recover. Nor should he use tea or coffee. The diet should be light, easily digested and nourishing, but plain.

INFLAMMATION OF THE HEART (Pericarditis.)

This is an inflammation of that membranous bag which surrounds the heart, the use of which is to secrete and contain the vapor of the pericardium, which lubricates the heart, and thus preserves it from becoming fast to the pericardium.

Symptoms—Pain in the region of the heart, suffocating weight, violent palpitation, breathing by starts, difficulty of breathing, increased by motion or exercise. Pressure also aggravates the symptoms. Pulse frequent and bounding; the countenance has a peculiarly pale and haggard appearance.

Remedies—1. In the treatment of this affection, aconite is a remedy of prime importance, as often, by the use of it alone, the disease is not only arrested but brought to a speedy and happy termination. It should be administered as follows: Tincture of aconite root, five drops to a tumbler of water, and stir well. Dose, two teaspoonfuls every half-hour, until the pain and heat abate and the skin is covered with more or less moisture, when the intervals should be extended to four or six hours; and to maintain its impression, these doses should be continued for three or four days, or until the inflammatory symptoms have subsided. If the pulse is irregular or intermittent, weak and rapid, making one hundred and thirty to one hundred and forty beats in a minute, the tincture of foxglove should be given in alternation with the aconite. The foxglove must be prepared for administration by putting ten drops of the tincture with ten teaspoonfuls of water, and giving a teaspoonful of the mixture for a dose, alternately with a teaspoonful of the aconite—first one, then the other—every two hours. This method, persistently kept up, with the other measures directed to promote the comfort of the patient, will, in most cases, be amply sufficient to relieve him, and cure the disease.

2. The foxglove (*Digitalis*) and the American hellebore (*Veratrum Viride*), are two most important medicines, and possess great power over the action of the heart, reducing the force and frequency of the pulse, abating inflammation of the heart and its membranes, calming nervous agitation and promoting rest. But these medicines should not be mixed together; neither is it necessary that they should be. Each should be taken separately, as it is only by this means that the power of the medicine can be determined, and its effects or curative influence judged of. The tincture is perhaps the best preparation. Dose of the foxglove, five drops, three times

a day. Of the hellebore, three to six drops, every four hours, until the pulse beats are seventy-five or eighty in a minute.

Of these two medicines, the American hellebore is probably the more efficient, in a majority of cases.

We have treated this disease very briefly, owing to the fact that the serious nature of the malady wisely induces people affected with it to put themselves under professional treatment.

Accessory Treatment—At the commencement of an attack, apply over the heart a towel wrung from hot water, and over that four or five thicknesses of dry flannel; confine the whole to its place by a bandage around the body, and renew often.

The patient should be kept quiet, not permitting him to be annoyed by anything; the temperature of his room should be rather cool and comfortable; the diet should be simple and not stimulating, principally fluids and vegetable infusions. The period of convalescence must be closely watched, both to avoid a relapse and to ascertain if any chronic difficulty is about to ensue.

HAY ASTHMA—HAY FEVER—SUMMER CATARRH.

Causes—This is a specific disease, affecting predisposed persons only, and affecting them in the same way, and at about the same period, every or nearly every year, and caused by the emanations from certain flowering plants, including the grasses. The term hay-fever is not sufficiently inclusive, for the odors from hay, although sufficient in many cases, less frequently produce the affection than the various flowering plants. It partakes somewhat of the nature of ague, certain emanations and atmospheric conditions depressing the nervous system.

Symptoms—They are those of an ordinary catarrh, to which those of asthma are superadded. There are itching of the forehead, nose, eyes and ears; much general irritability and lassitude, sneezing, profuse discharge from the nose, tightness of the chest, difficult breathing and cough, pricking sensation in the throat, general depression, etc. Exposure to the emanations from powdered ipecacuanha give rise to similar symptoms in many persons.

Inhalation—The remedy used internally should also be administed by inhalation, either by simple olfaction, or, still better, in the form of vapor; this is produced by means of an ordinary perfume, or spray-producer. Inhalation should always be employed during an attack.

Accessory Treatment—Removal to the coast, with a barren surrounding country, or to any part where flowering plants and grass do not grow or hay is not stored, offers the surest protection. The symptoms are mitigated by protection from bright sunlight, and by such means as tend to promote the general circulation. Cold or tepid bathing and the cold shower-bath are also recommended

under different conditions. In one reported case, a two or three minutes' swim in the sea removed the symptoms as if by magic.

Remedies—1. Use a weak tea of red clover-blossoms and leaves. Drink a teacupful of it three times a day, from the commencement of the attack to its close, or for several weeks, if necessary. This will often relieve, if it does not cut short the disease.

2. Dissolve twenty grains quinine in a tablespoonful of water by the addition of two drops of oil of vitrol, then take a feather or camel's hair brush and touch the inside of the nose. This often proves very efficacious.

3. Dr. H. H. Bayes recommends sabadilla, one drop two or three times a day, in water, and the administration of the drug by olfaction, or smelling, several times daily; and he adds, "By this means I have cured many severe cases."

ENLARGEMENT OF THE HEART.

Causes—Any over-stimulant which produces a diminution of its power and a softening of its structure, may occasion this disease. Intoxicating liquors, violent and long-continued muscular exertion, mental depression or excitement, sexual excesses, masturbation, rheumatic and syphilitic affections, and intense mental application with no bodily exercise, are potent causes.

Symptoms—Shortness of breath, palpitation of the heart, and a feeling of uneasiness in that region, are common. Frequently, headache, giddiness, ringing in the ears, flashes of light, flushed and swelled face, nose-bleeding and a very hard and strong pulse, are accompanying symptoms. Eventually the stomach, liver and lungs become implicated. The skin is dry, the urine deficient and high-colored, the skin and extremities purple and swollen. This is followed by cough, and the patient is forced to remain in an upright or sitting posture, and leaning forward, because of the difficulty of breathing. Death may occur suddenly, or the vital powers gradually fail, insensibility come on, and the patient die in this way.

Remedies—1. Sheep-laurel (*Kalmia Angustifolia*) is a remedy of great power and efficacy in the treatment of this disease, though, in large doses, it produces vertigo, dimness of sight, great depression of the action of the heart, cold extremities, and sometimes fatal results. But if it is cautiously used, and discontinued for a few days when these symptoms occur, it is a valuable medicine, and will afford the patient great relief. The best form of administration is the strong tincture, given in doses of five to ten drops every three hours. If a decoction or tea, of the leaves, is used, the dose will be one or two teaspoonfuls, repeated as often as the tincture.

2. Take, of the tincture of black cohosh and skullcap, each, four tablespoonfuls. Mix. Dose, twenty drops three times a day. A month's use of this remedy will prove its efficiency.

3. In simple palpitation, uncomplicated with organic disease, and existing only as a symptom of general nervous debility, there is no remedy that so certainly and promptly removes the palpitation, and gives tone and energy to the heart, as the *Cactus Grandiflorus*, ordinarily called the cactus plant. It is better to use it in the form of the tincture, one to five drops of which may be given every one to four hours, according to the severity of the symptoms.

Accessory Measures—The diet must be light, and intoxicating or stimulating drinks must be avoided, and likewise all mental or bodily exertion, as well as excitements or depressions of the mind. Cheerful company is of great service; and whatever will produce moderate laughter and pleasantness of feeling should be encouraged. Sometimes, an electro-magnetic current passed through the heart, of moderate strength, will be found beneficial.

It is not necessary to dwell at length on the treatment of this disease, as professional aid is usually called when this affection is known to exist.

HEART-BURN.

Causes—This complaint most commonly arises in consequence of dyspepsia, though it oftentimes occurs with individuals who are otherwise enjoying good health.

It is evidently either a debility or inactivity of the stomach, or a vitiated secretion of the juices or fluids which are concerned in the digestive process. Hence, eating anything hard to digest, or that is inclined to ferment, will usually produce the heart-burn in those liable to it.

Persons who are subject to the heart-burn should also be careful about their diet; rejecting such articles as they find are apt to become sour in the stomach. Animal food and shell-fish, when they can be procured, not being liable to ferment, ought to form a large proportion of the food of individuals who are afflicted with this troublesome complaint; whilst vegetables, as much as convenient, should be avoided; also tea and coffee; use milk or chocolate.

Experiment has also proved the fact that the saliva swallowed along with our food greatly prevents its fermentation; wherefore persons liable to the heart-burn should be very careful in well chewing their food before swallowing it.

Remedies—1. A teaspoonful of powdered willow charcoal, found at all drug-stores, taken two or three times a day, in milk or water, before meals, is good to remove this difficulty. It has also been known to cure dyspepsia.

2. The juice of lemon diluted with a little water, will often give prompt relief, and likewise a pinch of salt will often answer

the same purpose. If not relieved repeat the dose in thirty minutes.

3. Prepared chalk, also found at drug stores, is likewise said to be a good remedy. Also, *calcined magnesia*, one-half teaspoonful three times a day is used for the same purpose.

4. Lime-water, or soda, or magnesia, is sometimes employed to correct this complaint. Their effects are, however, only temporary. But, if it is desired, one of them may be used for this purpose. Take a piece as large as a pea, of lime or soda, and put it into a tumbler half full of water, and take a small swallow several times a day. Of the magnesia, use a piece the size of a common hickory-nut, in the same amount of water.

There are, frequently, persons who derive no benefit from taking these alkalies, especially pregnant females. For such persons, acids, such as lemon juice or citric acid, will prove effective. For immediate relief, vinegar is a valuable remedy. It should be of the best quality. Take twenty to thirty drops, in a little water, every two or three hours, according to the necessity of the case.

HOARSENESS.

Remedies—1. Take a piece of borax, the size of two or three peas, in the mouth, and let it dissolve gradually. Repeat this once in three or four hours. It will generally be found to afford relief, in ordinary cases of hoarseness.

2. Mix equal parts of grated horse-radish and sirup. Of the sirup thus formed, take a teaspoonful, together with a little of the horse-radish, five or six times a day. This will cure hoarseness occurring from cold. Chewing a piece, the size of the little finger, will be attended with the same results.

3. Or, for a sudden hoarseness, mix one teaspoonful of sweet spirits of nitre in a wineglassful of water. This may be taken two or three times a day.

4. Hoarhound candy is an excellent and pleasant remedy. A piece of saltpetre, the size of a bean, held in the mouth, is likewise effective.

INFLAMMATION OF THE LINING MEMBRANE OF THE ABDOMEN (Peritonitis.)

Causes—Mechanical violence, as a kick, operations, etc.; sudden and excessive changes of temperature; errors of diet; frequent intoxication, the disease termed gin-colic being really chronic peritonitis. Inflammation of the peritoneum is often secondary to enteritis, hepatitis, perforation of the intestine or stomach, and obstruction of the bowel.

Symptoms—It is preceded by chills, with increased heat of surface, thirst, full, strong and frequent pulse, flushed face, red eyes, dry tongue with red edges, dry skin, restlessness, short, quick breathing, and sometimes, nausea and vomiting. The only endurable position of the patient, is to lie flat upon the back, with the feet drawn up. When the disease is advancing towards a fatal termination, the abdomen becomes greatly swelled and hard, having a tight, drum-head feeling, to the hand; the pulse is rapid and feeble; the countenance is full of anxiety and is pinched and ghastly; and a cold sweat breaks out.

Remedies—1. In the treatment of this very painful and inflammatory affection, there is, perhaps, no remedy of superior efficacy and value, in arresting the progress of the disease and effecting a final cure, than the tincture of the root of aconite. Ten drops of it, in ten tablespoonfuls of water, and well mixed, is the manner of preparing the medicine for use. Of this, give to an adult a tablespoonful every hour or half hour, until the acute symptoms abate. Then the medicine should be continued, at intervals of four or six hours.

At the commencement of the treatment, a fomentation of equal parts of the tincture of aconite and brandy, heated as hot as can be borne, and cloths wrung out of it, and applied to the whole surface of the abdomen, being changed so as to keep it constantly hot, is an important measure, and should not be neglected, as it materially aids the internal use of the drug in effecting the resolution of the inflammation, by relieving the capillary engorgements of the vessels of the inflamed parts, equalizing the circulation, and producing copious perspiration.

2. When the abdomen is distended, very painful to the touch, pulse full, hard and tense, from 100 to 110 beats in a minute; tongue coated white, bowels costive, face flushed and glowing, patient becomes absorbed in reveries, or is absent-minded, the tongue and lips look dry; or if a tendency to diarrhea or involuntary discharge from the bowels develops itself, belladonna (or morphia, one-eighth grain doses) should be employed. Put five drops of the tincture into twelve tablespoonfuls of water, and give the patient a teaspoonful at a time for a dose, every four hours; or, it may be given, in alternation with the aconite, every two hours; that is, first one, then the other, every two hours.

3. The one great remedy above all, in inflammation of the lining membrane of the bowels, is opium, in any form. Do not fear to give it. One grain of the powdered extract, or twenty to thirty drops, of the tincture, every two or three hours. Persons suffering from this trouble, can take very large quantities of opium without harm.

Accessory Measures—The daily bath is especially necessary, particularly the warm, alkaline sponge-bath, made by adding saleratus, soda or soap, to the water, with vigorous friction. In some

cases, a wet towel, laid upon the bowels over night, and well covered with flannels, will afford relief.

Diet—During an attack of acute inflammation of the bowels, nothing but rice-water, arrow-root, corn-starch, toast-water or weak gruel should be allowed.

INFLAMMATION OF THE LIVER—LIVER COMPLAINT (Hepatitis).

Causes—The causes are all those producing inflammation, tumors in the liver, injuries from external violence, mercury, hot climate, obstructing the liver-ducts, anything that suddenly cools the liver after it has been much heated, drinking largely of wines and spirituous liquors, eating hot, spicy aliment, violent exercise, exposure of the heated body to the cold air, etc. Those who have exposed themselves to the destructive habit of drinking to excess, are particularly liable to diseases of the liver.

Symptoms—The acute species of this complaint comes on with a pain in the right side, extending up to the shoulder, which is much increased by pressing upon the part, and is accompanied with a dry, short and frequent cough, oppression of breathing, and difficulty of lying on the left side; together with nausea and sickness, and often with a vomiting of bilious matter; tongue coated. The urine is a deep saffron color, and small in quantity; there is loss of appetite, great thirst and costiveness, with a strong, hard and frequent pulse, and when the disease has continued for some days, the skin and eyes become tinged with a deep yellow.

The chronic species is usually accompanied with a morbid complexion, loss of appetite and flesh, costiveness, indigestion, flatulency, pains in the stomach, a yellow tinge of the skin and eyes, clay-colored stools, high-colored urine depositing a red sediment and ropy mucus; an obtuse pain in the region of the liver, extending to the shoulder, and not unfrequently with a considerable degree of asthma.

Dr. Sparks' Favorite Cure for Liver Complaint.—*Fifteen years ago, says the doctor, I was afflicted with the liver complaint. I used all my skill trying to cure it, but failed. I then tried two physicians in Philadelphia, Doctors Wilson and Jordan, but without success. An old nurse informed me that she always cured the liver complaint with Dandelion Root. I procured fifty cents worth which completely cured me. Ever since I have used this remedy without a failure. It is my favorite prescription, and I think there is nothing equals it.* See next page for mode of using it.

Remedies—1. Leptandrin is a popular remedy, in doses of one grain once a day. If the root is used as it may be when it can

be obtained, make it into a decoction or tea, and take two table spoonfuls twice a day.

2. The dandelion has been used very successfully in this complaint. A medical writer says, "In my own practice, more than fifty cases have been cured either by the simple extract of the herb and root, or by taking a teacupful of a strong decoction of it twice a day. In almost every instance I have succeeded in restoring those who have used this plant."

3. The following is an excellent remedy in chronic liver complaint: A decoction, of equal parts of chittim bark (*Cascara Sagrada*) and Oregon grape-root (*Berberis Aquifolium*), used twice a day, in tablespoonful doses. The fluid extracts of these articles can be obtained at drug-stores, and are equally as effective. Take two tablespoonfuls of each, and the same quantity of sirup. Mix. Dose, one teaspoonful, twice a day. This is a new remedy, but has already gained much celebrity, in the treatment of this complaint.

Accessory Treatment—During an attack of this disease, the diet should consist of rice-water, gruel, toast-water, etc. Let fomentations be applied warm to the side, or over the region of the liver. Should they not take off the tension and afford relief, apply cayenne pepper and brandy, simmered a few minutes together. These may be applied often, and as warm as the person can bear. In this disease vomiting is a very common symptom; to allay which, give a little saleratus, in peppermint water or tea, as often as the vomiting returns. This will allay the irritability of the stomach. Should these applications not mitigate the symptoms, apply the following plaster to the side: Take mustard, red or cayenne pepper, equal parts; Indian meal, a tablespoonful; vinegar, sufficient to form a plaster or poultice of suitable consistence. Apply warm to the side, and over the region of the stomach, and continue it as long as the patient can bear. Blisters should be dispensed with, their effect always proving very troublesome and not unfrequently serious. In this disease the question is, in reality, not one of medicine, but of diet, regimen, and intelligent nursing. Medicine may certainly be required, but not by any means to the extent it is so often used. Those persons who are habitually liable to a diseased state of the liver ought most strictly to regulate their diet, avoiding coffee, strong tea and all stimulants. Take moderate exercise every day; use a good diet, but such as is easy of digestion, and not disposed to produce acid in the stomach or costiveness; bathe the surface of the body every day with a weak lye-water, and in drying, use sufficient friction to produce a gentle glow of heat over the entire surface of the abdomen.

INFLAMMATION OF THE STOMACH (Gastritis).

Acute inflammation of the stomach, except as a result of poisoning by some irritant, is a rare disease.

Symptoms—Burning pain increased by pressure; persistent thirst for cold drinks, with inability to retain either food or drink; constant nausea, coated tongue and foul taste; difficult breathing, faintness, prostration, anxiety, etc.

Chronic gastritis is indicated by dull pain and oppression soon after a meal, and sometimes vomiting of acid or mucus. The tongue is coated or red at the edges, and the patient often complains of heart-burn, flatulence, thirst, burning of the hands or feet, confined bowels, scanty and high-colored urine. It usually accompanies affections of the liver, heart and kidneys, and is frequent in drunkards.

Causes—Indigestion; cold draughts, dampness, etc.; cold drinks when over-heated, mechanical injuries, poisons—arsenic, vegetable acids, caustic alkalies, etc.

Remedies—In this disease you must rely chiefly on external applications.

1. Apply a large mustard plaster over the stomach, until the skin becomes very red; then remove it and apply to the stomach flannel cloths dipped in a hot infusion of hops, boiled in vinegar and water, or in hot water alone. This should be continued for hours. Bathe the feet and legs in hot lye-water, and apply hot bricks to the patient in bed.

2. Give, in small quantities at a time, cold mucilaginous drinks, as gum-Arabic water, or an infusion of slippery elm, or marshmallow, and a little lemonade. If this treatment is promptly pursued, it will effectually arrest this disease in its earlier stages.

3. Purchase at the drug-store or gather a large handful of stramonium-leaves, and apply to the stomach as a fomentation, and about every half-hour take a swallow of as warm water as can be borne. *This is one of the best and safest remedies known in this disease.*

4. If the above remedy cannot be readily procured, another valuable one is, to apply a fomentation of peach-leaves, alone or in combination with hops, steeped in vinegar and water, and, at the same time, take a tablespoonful every hour of an infusion of the peach-leaves, until the pain and heat subside, after which it may be taken less frequently.

5. In this disease, the tincture of the root of aconite is a remedy of great value. Five drops should be added to a tumblerful of water, and well mixed. Of this mixture, give two teaspoonfuls for a dose, and repeat every half-hour or hour, until a decided impression is made on the disease, which will be manifested by a diminution of the pain, heat and tenderness, when it should be given once every three or four hours, until the inflammatory symp-

toms have entirely subsided. No cathartics should be given in inflammation of the stomach.

6. An old practitioner says the following is his favorite remedy "Give twenty grains of sub-nitrate of bismuth in gum-Arabic water three times a day, using flax-seed tea for a drink."

Accessory Treatment—In acute cases, small pieces of ice may be swallowed, and during the severity of the symptoms the patient should be fed by nutritious injections. During convalescence, the patient must return to solid kinds of food very gradually. On recovery, the stomach remains for some time feeble, and without due care it is liable to assume a chronic form, similar to dyspepsia.

At first, barley-water, toast-water, rice-water, etc., may be given; and when the inflammation is entirely overcome, arrow-root, milk, chicken-broth, beef-tea, soft-boiled egg, etc., slowly and gradually accustoming the stomach to its usual diet.

Chronic Form—In the treatment of the chronic form of this disease, first regulate the patient's diet. While the more urgent inflammatory symptoms are present, gum-Arabic water, rice-water, arrow-root, toast and tea, and other mild, easily-digested articles of food may be used. If there is no fever, and not much debility, a more nutritious diet may be used, as boiled rice, stale bread, crackers, mush and milk and gruels. Milk is an excellent thing, and cases have been cured by living on bread and milk alone. The addition of a little lime-water makes it still better. Alcoholic and stimulating drinks, coffee and the like, are to be avoided.

The medical treatment of this form of the complaint should be mainly conducted by the use of the tincture of aconite. One or two drops, in a tumblerful of water, mixed well together, and a dessertspoonful taken every three, six or eight hours will, in most cases, be sufficient in the process of time to complete the cure. Should there be, however, much pain or tenderness, an irritating plaster may be worn on the sore part of the stomach. Bathe the whole surface of the body daily, and rub it well with a coarse towel.

For an irritating plaster, the "Poor Man's Plaster," or the "Burgundy-Pitch Plaster," may be employed, either of which may be procured at any drug-store.

ITCH (Scabies Acari).

The itch is evidently confined to the skin, and rarely affects the general system, however great its irritation. It arises usually from infection, communicated by coming in immediate contact with the body of a person already affected, or by wearing the same clothes, or lying in the same bed; but it is sometimes produced by unwholesome food, bad air and a neglect of cleanliness.

The itch shows itself in small pimples about the fingers, wrists, hands and waist, which, after a short time, become so many pustules, and are attended with such an itching as to occasion a constant desire to scratch. When they break, the acrid fluid which they contain falls on the neighboring parts, and thereby spreads the disease over almost the whole body, if proper remedies are not used to check its progress.

Remedies—1. Two to four applications of petroleum will cure the itch. Also benzine, applied once or twice, and a warm bath taken an hour afterwards will, it is said, effect the same purpose.

2. The following is a popular remedy for this affection: Gunpowder, half an ounce; strong vinegar, half a pint; grind the gunpowder fine and mix the two together. Apply thoroughly once a day.

3. Sulphur made into an ointment with lard is an old but sure remedy. Blue ointment is likewise effective.

SEMINAL EMISSIONS.

Causes—The chief of these are self-pollution, exhaustion, natural weakness and sexual excesses. An excited state of the seminal vesicles is the effect of such habits, and they expel their contents during sleep, weakening and depressing the patient. If the discharge only occurs once in a week or two, it is of no special consequence; and if the mind is habitually engaged in congenial and healthful employments, nature will soon work a cure; but should it take place as often as every night, or even once in two or three nights, measures should at once be taken to effect a cure. This, it should be remembered, *neither quacks nor their nostrums can accomplish.* Their object is deception and gain, and all their advertising is framed to *excite the fears of the patient* and get his money.

Remedies—If any one will observe the following directions, he will soon be cured: First, let him keep his thoughts pure and shun stimulants of every kind, even tea and coffee; secondly, let him banish all fears concerning the result of his disease, as many pure, unmarried men are occasionally troubled in this way; thirdly, let his employments—especially those of the mind—be regular and absorbing; fourthly, let him spend his leisure in the society of virtuous women. Finally, the body should be bathed every few days with soap and water, and the surface afterwards rubbed into a glow. Pouring cold water on the back of the head and down the spine and washing the generic organs is good and may be practiced daily. The labor or exercise should be moderate, the bed hard and lightly covered, and the patient should lie always on his side—the right side is the best.

INFLAMMATION OF THE BOWELS (Enteritis).

This is an inflammation of the mucous membrane lining the intestines. It is characterized by fever, fixed pains in the abdomen, costiveness and vomiting.

Causes—An inflammation of the intestines is occasioned by long-continued costiveness, or hardened, feculent matter lodged in some part of the tube; by the strangulation of a protruded portion of the intestine in a rupture; by preceding colic; eating unripe fruits or great quantity of nuts, and by hard tumors of the intestines or strictures; but the most frequent cause is exposure to cold; particularly when applied to the lower extremities or bowels, and occasionally by cold drink swallowed when the body is much heated by exercise.

Symptoms—This dangerous and painful disease is characterized by acute pain in the bowels, which is much increased by pressure, and shoots around the navel in a twisting manner; there are obstinate costiveness, tension of the abdomen, and the vomiting generally bilious, or dark and fetid; the urine is high-colored, the pulse quick, hard and contracted, with some degree of febrile heat, thirst and great depression or loss of strength. The patient is constantly belching up wind, and in protracted cases, he even discharges excrement by the mouth, the motion of the intestines becoming inverted from there being no passage downward.

Remedies—1. Keep applied to the bowels, a warm fomentation of jimson leaves (Stramonium), prepared with equal parts of strong vinegar and water. This, with proper diet and nursing, is sufficient to cure the disease in all ordinary cases. In any case where the stramonium leaves cannot be had, hops and hoarhound are good, and should be used in their stead.

2. In no case should cathartics be given in this complaint. On the contrary, the bowels should be kept from moving, and every means brought to bear that will relieve them of excitement and irritation. No alarm need be experienced, if there is no action of the bowels even for a week or more. Many times when patients affected with this disease have been doing well, they have, on very short notice, been killed by a cathartic in the hands of a maniac of a professional man, or otherwise, who is never satisfied unless the bowels of his patients are continually moving.

3. The following has also been used with good success: To half a tumbler of water, add five drops of the tincture of the root of aconite. Mix. Give a dessert-spoonful every half-hour or hour until the most painful symptoms have subsided, when the intervals should be extended to three or four hours. This is a remedy of great value in the treatment of this disease, and, if its use be persevered in it will, in the majority of cases, arrest the progress of the affection, and cure the patient. The fomentation recommended

under peritonitis will also be of great value in this form of inflammation.

4. If mortification should be apprehended, apply over the bowels a poultice made of a decoction of the wild indigo (Baptista Tinctoria) root or leaves, and give a little of the tea, or infusion of the same internally; say, two tablespoonfuls every four hours. Or, apply a yeast-and-charcoal poultice, and at the same time take a tablespoonful of it every three or four hours. These are among the best agents known to check the tendency to mortification.

Accessory Treatment—During an acute attack, if the disease is attended with fever, soreness in the bowels and diarrhea, the patient should retain the horizontal position, and eat neither food in substance nor animal food, but simply use rice-water, arrow-root, barley-water, toast-water, and the top or thin part of oatmeal or corn-meal gruel. As the disease abates and the appetite returns, make the above drinks thicker, and very cautiously return to a more nutritious diet. In chronic cases, milk may be added to the above articles. A warm bath daily, especially in chronic cases, will be found of great service.

INFLAMMATION OF THE BLADDER (Cystitis).

Causes—It is occasioned by an improper use of acid medicines (such as Cantharides), inflammation extending along the urinary channel, permanent or spasmodic stricture, local irritation from the lodgment of a stone, hardened feces, or a diseased state of the prostate gland, and mechanical injury, as well as by all the usual causes of inflammation.

Symptoms—Where the disease exists, an acute, burning pain, and some degree of tension at the bottom of the abdomen, with a constant desire to make water, a difficulty in voiding it, or total stoppage, a frequent inclination to go to stool, much uneasiness and heat, a general febrile disposition, a frequent and hard pulse, sickness and vomiting, not unfrequently attend.

It sometimes becomes chronic, and is very afflicting. There is a frequent desire to urinate, and a discharge of mucous or blood.

Remedies—1. In this disease it is seldom necessary that any remedy should be administered, except a tea made of the pods or hulls of the common bean. It is to be drunk freely three to six times a day, from which a speedy cure may be expected. This result is another demonstration of what has often been stated, that nature has provided us with simple remedies, in abundance, for all the diseases to which we are subject.

2. A decoction of the marshmallow should be drunk constantly; it is a sovereign remedy in diseases of the urinary organs,

and may be relied upon as a specific in this. It is not unfrequently as efficacious as the above remedy.

3. Parsley tea, with a little sweet spirits of nitre, is also used with good effect.

4. I am generally successful in treating this disease by having the patient drink freely of a tea of trailing arbutus. To each teacupful of the tea add six grains of chloride of potash.— *Dr. Dickson.*

Accessory Treatment—For the relief of pain, hot fomentations of hops, and, in acute cases, rest in the horizontal posture. The warm hip-bath, the abdominal compress and mucilaginous drinks, favor recovery. Washing out the bladder is often useful; but only small quantities of tepid water—one to two ounces—should be introduced at a time; as far as possible, too, the water should be introduced like the continued percolation into it of the urine from the kidneys by the ureters, or the sensitive organs will be offended and injured.

JAUNDICE (Morbus Regis).

The above terms are used to express conditions in which many of the tissues and fluids of the body become yellow, especially the whites of the eyes and the connective tissues of the body. Jaundice is often a symptom of some acute or chronic affection of the liver, rather than a disease in itself.

Causes—The immediate cause of the jaundice is an obstruction of the bile. The remote or occasional causes are, the bites of poisonous animals, as the viper, mad dog, etc.; the bilious or hysteric colic; violent passions, as grief, anger, etc. Strong purges or vomits will likewise occasion the jaundice. Sometimes it proceeds from an obstinate ague, or from that disease being prematurely stopped by astringent medicines. Pregnant women are very subject to it. It is likewise a symptom in several kinds of fevers. Catching cold or the stoppage of customary evacuations, as the *menses*, the bleeding piles, issues, etc., will occasion the jaundice.

Symptoms—Yellow tinge, first of the whites of the eyes, then of the roots of the nails, and next the face and neck, and finally the trunk and extremities. The urine becomes yellow-colored or deep-brown, and stains the linen; the stools whitish or drab-colored; there is constipation, lassitude, anxiety, pain in the stomach, bitter taste, and generally fever-symptoms. Sometimes, especially in children, the bowels are relaxed from the food not being properly digested and occasioning irritation. There are also, usually, depression of spirits, prostration of strength and slowness of the pulse.

Remedies—1. Take a small quantity of soot, tied in a bag, the size of a hen's egg. Let it lie in a glass of water over night. In the morning remove the bag and add to the water one egg, well

beaten, and take at a dose. Repeat each morning, until a cure is effected, which will be accomplished in a short time.

2. Prof. I. J. M. Goss says, in his *Materia Medica*, "Some thirty-two years ago, I had been very badly salivated in an attack of simple bilious or intermittent fever, by my preceptor, and it resulted in an attack of jaundice, for which I was again salivated several times, with the result of an increase of the jaundice. I now gave up to die, for I had tried six or eight of the best physicians of Georgia. Their remedies were the same, mercurials, which only increased the disease. So I had, after trying mercury for four or five months, given up in despair. About this time I was induced by a fellow-student to try the 'old woman's remedy,' Chionanthus ('Old Man's Gray Beard,' as they called it), which grew plentifully upon the sandy land near Augusta, Georgia, where I was then attending lectures; and as the faculty had utterly failed to cure, or even benefit me, I concluded to try it.

"I procured a small quantity, and made a tincture in gin, and took a tablespoonful before each meal. In a few days my appetite began to improve, and my skin very rapidly cleared, and in some ten days my jaundice was gone; my skin was clear of bilious hue, and I felt like another man. * * * * I subsequently met with many cases of jaundice, and found the remedy so prompt to remove it, that I published my experience in the *Eclectic Medical Journal*, of Philadelphia, since which time I have used it in a great many cases with success. I now use a saturated tincture, made by adding eight ounces to one pint of alcohol (960). Dose, one drachm, three times a day."

This shrub is known by various names, as Old Man's Beard, Fringe-Tree, White Ash, and Chionanthus Virginica.

3. Another good remedy is the following: Take, of the twigs of the peach tree, or the fresh leaves, a large handful, bruise them, and just cover with *cold* water. Of this drink, take a fourth of a teacupful three or four times a day. This has cured a great many cases of jaundice, and is easily obtained. Physicians, who have made use of this remedy, speak of it in the highest terms.

Accessory Treatment—Flannel squeezed and applied, after immersion in *hot* water, or a hot hip-bath relieves pain. Jaundice from inactivity and chronic congestion of the liver requires change of air and scene, traveling, *daily walking or horseback exercise*, and regular and temperate habits.

Gall-Stones—A not uncommon impediment to the flow of bile is the impaction of a *gall-stone* in the natural channels of the bile. A gall-stone consists of bile in a crystalline form. The pain attending the passage of gall-stones is very severe, commences suddenly, is constant for a time, and terminates suddenly, and is thus distinguished from colic, and by the pains being of a more local character, and in the region of the gall duct.

The pain occurs in paroxysms and is felt a little to the right of

the stomach, beneath the lower ribs, and may shoot through to the back. There are sometimes nausea and vomiting, anxiety, great restlessness, faintness and great prostration, with pale skin, small and frequent pulse. Several paroxysms may occur in an hour, and the attack usually lasts from a few hours to several days, until the stone enters the intestine, when the sufferings are immediately relieved, and the stone passes off with the discharges.

Remedies—1. Take one gill of pure, sweet oil before retiring at night, and on the following morning a dose of seidlitz powders, and another every hour until an action of the bowels is obtained. In three or four days, repeat the oil and powder in the same manner as before. Usually, a few doses will be sufficient. Two or three doses have been known to expel forty to sixty gall-stones. *Night* and *morning*, at the time of taking the medicine, *the bowels, over the region of the liver, should be thoroughly rubbed* for some length of time.

Accessories—Persons liable to gall-stones should eat no wheat-bread, because there is so much lime in wheat, as also in the water, but should drink milk, rain or snow-water, or distilled water, and eat rice, sago, fruits, berries and lean meats and vegetables, for these have no lime in them.

BRIGHT'S DISEASE OF THE KIDNEYS (Albuminaria.)

Symptoms—Dropsy of the upper as well as lower parts of the body—the hands and feet, as well as the face, being puffy and swollen; febrile symptoms—a dry, harsh skin; quick, hard pulse; thirst, and often sickness, from sympathy of the stomach with the kidneys.

There is frequent desire to pass water, which is scanty, highly colored or smoky-looking, albuminous and of high specific gravity.

Causes—The effects of fever, especially *scarlet fever*, exposure to wet and cold, the action of irritating drugs, alcohol, etc.

In the chronic form there is debility, general impairment of the health and pallor of the surface, coming on insidiously, with pain in the loins and frequent desire to pass water, particularly at night, the urinary secretion being at first increased in quantity. The patient's face becomes pallid, pasty and swollen, so that his features are flattened, and there is loss of appetite, acid eructations, nausea and frequent sickness, which nothing in his diet can account for.

Remedies—1. In many instances unfermented cider, taken three times a day, has been very efficacious in this disease. The malic acid of the cider exerts a salutary influence on the diseased kidneys.

2. An infusion of equal parts of peach leaves and queen-of-the-meadow, taken freely, two or three times a day, is likewise a

very valuable remedy. In this, as in other diseases, the less strong and powerful medicine the patient takes, the better.

Milk a Cure for Bright's Disease. *Dr. Schmidt says: that milk is the most successful remedy that he has yet found in his practice for curing Bright's Disease, and that many patients owe their lives to this remedy after all other means had failed.* It may be given cold or tepid, from half a pint to a pint at a time An adult will sometimes take as much as a gallon in 24 hours. It should be made almost the exclusive diet.

4. A wineglassful of a decoction of hops, taken twice a day, has cured this disease in a few weeks, after it had resisted medical treatment for months in succession.—*L. E. Sawyer, M. D.*

5. Many persons have been cured of this disease by eating a radish the size of the finger three times a day.—*Dr. J. H. Sutfin, N. M.*

Accessory Treatment—In the acute disease, warm baths or vapor baths should be used early, to promote the functions of the skin, lessen the dropsy, and to carry off from the blood deleterious matters, which may be retained in it by inaction of the kidneys. Vapor baths are preferable to warm baths, because they can be used at a higher temperature. The action of the bath may be much prolonged, and the bath, in consequence, rendered more efficacious, in the following manner: The patient is enveloped to the neck in a sheet wrung out of warm water, and three or four dry blankets are closely folded over it. He should be afterwards quickly dried, and wrapped up in blankets. If there be much debility, warm baths should be employed with discretion. Further, to favor the free action of the skin, warm clothing—flannel and woolen garments—should be added, and chills and draughts guarded against. In chronic or convalescent cases, a healthy residence is necessary, including a sandy soil and mild, dry air, so that out-of-door exercise may be taken. Patients with symptoms of Bright's disease should be encouraged to take abundance of open-air exercise as long as strength permits, chills and fatigue being guarded against. Bathing or cold sponging, and friction with a sheet or bath towel, tend to arrest the disease and invigorate the health. By such means, patients suffering from chronic disease of the kidneys may live for years, enjoying the pleasures and fulfilling the duties of life.

KIDNEY-DISEASE, OR INFLAMMATION OF THE KIDNEYS.

Disease of the kidneys may be distinguished from colic and other similar affections, by the pain being seated far back, and by the urine being of a deep-red color, voided frequently, and in small

quantity at a time; and it may be known from rheumatism by the pain not being much increased by motion.

From the inflammation attending the gravel or stone, this complaint may be known by the fever which attends it from the first, and by the absence of some of the symptoms attending the gravel, such as numbness of the thigh, drawing up of the testicles, etc.

The causes which give rise to disease of the kidneys are, external bruises, strains of the back, acrid substances conveyed to the kidneys in the blood, violent and severe exercise, either in riding or walking, and exposure to cold.

This disease is attended with a sharp pain on the affected side, with much difficulty in passing urine; the bowels are costive, the skin is hot, the patient feels great uneasiness when he attempts to walk or sit upright, and he lies with most ease on the affected side.

Remission of the pain and fever, followed by a copious discharge of high-colored mucous urine, universal sweating, or a flow of blood from the hemorrhoidal veins, passed in the stools, are favorable symptoms.

Remedies. 1. SUPERIOR TO ANY PATENT KIDNEY-CURE SOLD. *Burn saltpetre to a coal. Pulverize and take one-fourth teaspoonful twice a day. The impurities that it will bring from the kidneys will be a surprise.*

2. Another excellent means for the relief of this disease, is to take essence of peppermint, in half teaspoonful doses, with a little water, three times a day. This remedy alone has often cured inveterate cases of kidney disease, that had baffled medical skill for months in succession.

3. **Carrot Cure for Kidney Complaint.** *A contributor to a New York Medical Journal states: After doctoring for over two years for this disease without any beneficial results, I cured myself with the carrot remedy. I have since prescribed it to my patients, some of my worst cases, and a complete cure has been effected.* Its use is to simply substitute the raw carrot for chewing tobacco, carry it in the pocket and use it five or six times a day.

4. Take Marshmallow and Queen of the Meadow, each, 3 oz. Add 4 qts. of water and boil to one. Then add 2 oz. gum Arabic, ½ oz. Spirits of Nitre. Dose, teacupful four times daily. This is an excellent remedy too, for bladder troubles.

5. **Redbank's Indian Cure.** *He says the sheep sorrel is a sure cure for this complaint. It can be found in the drug stores, also growing wild.* Dose, half teacup of the tea three times a day.

Accessory Treatment—To relieve the pain, hot fomentations of hops and stramonium leaves, or of hops and tansy, may be applied over the region of the kidney, and these should be renewed frequently. In very violent cases, cupping over the part has been found efficacious. Mustard may be applied along the lower half of the spinal column, previous to the use of the fomentations. The

hot sitz-bath will be found very advantageous; or seat the patient in a tub of hot water, put his feet in a bucket of hot mustard water, with a blanket drawn close around him, including his feet.

In addition to these measures, mucilaginous diuretic infusions must be freely drunk after the more active inflammation has been subdued, as an infusion of marshmallow-root and peach leaves or flax seed, which will be found to have an excellent influence in lessening the inflammation. Other diuretics will be found of efficacy, as infusion of cleavers, or elder blows.

The above treatment should be persevered in daily, until the inflammation is subdued, or begins to subside.

The patient should be kept quiet and free from excitement; his diet, during the inflammatory stage, should consist only of mucilaginous drinks, as infusion of flax seed, gum-Arabic water. And great care must be taken, during convalescence, not to allow at too early a period a more stimulating food.

In the treatment of this disease, emetics and cathartics should not be employed; for in this, as well as many other diseases, patients are often vomited and purged into eternity.

MORTIFICATION.

Symptoms—If it supervene on inflammation, there will be acute and constant pain, great anxiety, often delirium, followed by a sudden cessation of all inflammatory symptoms. The part before tense now becomes flaccid, of a livid color, losing its heat and sensibility. Blisters are formed, under which appear brown spots. The parts soon become black and acquire a fetid smell. If the event proves favorable, the mortified portion is completely surrounded by a white line, about which pus (matter) is formed. The dead part now loosens and sloughs out, leaving a suppurating ulcer. If, on the contrary, the termination be fatal, the mortification rapidly extends; great constitutional irritation arises; the pulse becomes small, rapid and irregular; there is a fixed flush on the countenance, with great anxiety and prostration of strength; and death soon ensues.

Mortification is sometimes produced without previous inflammation, by blood vessels choked by pressure, long continued cold, long-continued pressure, violent bruises, debility, etc.

Treatment—When inflammation has been properly treated, it will seldom or never terminate in mortification. But, when called to treat it, our object should be to arrest and prevent any further extension of it by means both local and constitutional. If it be connected with or dependent on inflammation, means must be taken to subdue that inflammation. If debility of the system has been a predisposing cause, it must be remedied by a more wholesome

regimen, and the strength of the patient be supported by stimulants and nutritious diet. Tonics also should be administered, and a glass of yeast and charcoal, three or four times during the day.

Local Applications—When blisters or vesicles appear upon the part, showing a disposition to gangrene, or when sloughing actually takes place, the following poultice will separate the living from the dead parts, and put a speedy check to it: Take yeast, and pulverized charcoal, a teaspoonful to a cup of yeast; stir in slippery-elm bark to form a poultice of the proper consistence; apply tepid, and often renew. This will correct the fetor of the parts, and assist the powers of nature to separate the mortified from the living flesh. I have not known this application to fail in a single instance, except in one case of dry mortification, from which a person seldom recovers.

The mortified limb must be bathed three times a day in warm, weak lye, one hour each time. The application of a lye-poultice has proved a sovereign remedy in mortification, as well as in lock-jaw. It is not only well calculated to prevent, but to cure it when it has taken place. After having been applied a short time, it has often separated and detached large portions of mortified flesh, and brought about a healthy action. The elm-bark should be mixed in leeched, warm lye, and applied tepid.

Dr. Ferris, who was noted for a successful method of treating mortification, made use of the following poultice: Scraped carrots and spikenard-root, bruised; boil till soft; stir in a small quantity of Indian or oatmeal and charcoal, and apply warm. I have used this poultice but little, and, therefore, cannot speak with much certainty of its effects; but in one very difficult and critical case of inflammation, bordering on gangrene, it changed the character of it, and was attended with a good effect.

Remedies—1. A variety of articles are used as external applications in cases of mortification of wounded or ulcerated parts. A poultice of *charcoal* and *yeast*, or of the bark of sassafras pounded fine, or smart-weed bruised, boiled and thickened with corn-meal, with the addition of a small quantity of cayenne to either poultice, will be found very valuable remedies to prevent or check mortification. A poultice made of the bruised root of the wild indigo, boiled and thickened with corn-meal, has also been highly recommended as an application to mortified parts. The addition of a little capsicum, it is very probable, would increase the antiseptic power of this poultice as well as the others; though either would be highly valuable without it.

2. Dr. Beach highly recommends the use of an alkali poultice, made by mixing the pulverized bark of slippery elm with weak lye, until of the proper consistence, and applying it moderately warm to the affected part.

The poultices should be frequently renewed, and at each renewal the ulcer ought to be washed with soap-suds, then with a tea

of witch-hazel leaves, white pond-lily, dewberry, or some other astringent article, and lastly, with the compound tincture of myrrh; when a fresh poultice must be immediately applied.

3. A tea of the wild indigo, taken internally, is highly recommended by Dr. Thacher, as being valuable in mortification, either internally or externally applied. He recommends the tea to be taken internally at the same time that the poultice is applied externally.

4. The free use of pyroligneous acid to the part, and a poultice composed of pulverized alum, yeast and charcoal, will arrest nearly every case of gangrene and mortification.

MELANCHOLY, OR HYPO (Hypochondriasis).

This is a functional disorder of the nervous system, attended with exaggerated ideas or depressed feelings, but without actual disorder of the intellect.

Causes—Hereditary influences are potent and common; a taint of insanity, or other grave nervous disease, may be generally traced in near or remote ancestors. The development of the disease is usually in connection with the conditions of middle life, especially indolence and luxury; or, on the other hand, with anxiety and conscious failure in efforts to provide for relations and dependents. Severe shocks of a moral or emotional nature may give rise to the malady. The patient's complaints may, however, be not merely fanciful, but due to actual disease. Organic diseases of the liver or stomach are especially likely to evoke the symptoms of this disease, or they may arise, or be excited into new action, by a concurrent morbid process. The statements and symptoms of a hypochondriac should therefore be carefully examined.

Symptoms—The subject imagines himself, without sufficient ground, the subject of some serious disease, and is often haunted with the dread of insanity or of death. Frequently, at first, the patient considers himself dyspeptic, from the fact that he is troubled with flatulence, has a furred tongue, foul breath, irregular appetite and general obstinate constipation. After a time he complains of a gnawing or burning pain, of uneasiness at the pit of the stomach, or of more serious disease. He has great hope of getting rid of his malady, and strong faith, notwithstanding repeated failures, in treatment. Afterwards, from attention being directed to particular organs, functional disturbances arise—flushes, palpitation, suppression of bile or bilious diarrhea; symptoms which tend to confirm the belief that organic disease exists.

Treatment—Of all the remedies for this disease that which is most important is, active employment out of doors. The human body was made for motion. The open, fresh air is very important to restore the system to a sound condition. Temperance, both in

eating and drinking, will do much for this class of patients. Amusements are very important. Lively company, cheerful and witty conversation, with mirth and laughter, are to be sought for; so are hunting, fishing, riding and traveling. Never allow these patients to be alone and to have time to brood over their misery. See that they go early to bed and rise betimes in the morning. The warm bath, the cold shower or sponge-bath, with brisk friction, are not, on any account, to be omitted. The diet should be light, nutritious and generous; but fats, acids, liquors and coffee must be forbidden. If there be costiveness, let the patient eat cracked wheat and plenty of good ripe fruit. A bowl of motherwort-tea, with half a teaspoonful of spirits of camphor in it, will do well in fits of fainting, when there is a sensation of dying.

MILK-SICKNESS.

This complaint is supposed to arise from some poison eaten by the cows, which is communicated to the milk and butter. When this is taken into the stomach, these symptoms follow: Sometimes languor and lassitude are felt for some days previous to the attack of this disease, with putrid tongue and very offensive breath; at other times it comes on suddenly, with severe vomiting, thirst, burning at the pit of the stomach, obstinate costiveness, etc. The cattle that eat it quiver, stagger and sometimes die within a few hours. It often proves fatal to man and beast.

Remedies—1. To check the obstinate vomiting, which is a common symptom of this complaint, give the patient one-tenth to one-fourth grain doses of ipecac, dry, on the tongue, repeating every half-hour or hour. This remedy will almost invariably relieve him of this distressing symptom, so that his stomach will be able to retain other remedies, which it may be necessary to administer.

When ipecac is not at hand, or cannot be obtained, other measures must be adopted.

2. Add bruised peach leaves to cold water, and take it as a drink, in small quantities.

3. The following is another good preparation: Lime slaked or unslaked, one-half an ounce; water, half a pint. Mix, and let stand two hours. Pour off the clear liquor, and to this add two-thirds of a teacupful of milk. This will be kept on the stomach when everything else is rejected. Dose, a tablespoonful every twenty or thirty minutes.

4. A mustard plaster may be applied to the stomach, and perspiration promoted. Should vomiting continue, a teaspoonful of salt can be given every two hours, in equal parts of hot water and vinegar; toasted-bread water and mint tea are good. Dr. Jones highly recommends smart-weed tea.

5. In this disease obstinate constipation prevails, which should be removed by injections of tea of the butternut bark or twigs, or of castor oil, or hogs' lard and warm water, occasionally adding about the fourth of a teaspoonful of cayenne, and administering in large quantity, as by this means the hardened feces, contained in the rectum, will be more readily dissolved and carried out of the system. There will also be an advantage, on this account, in retaining the injections until several of them are administered.

Charcoal has of late been highly extolled as a remedy in costiveness, and is said to open the bowels when other remedies fail.

6. It is believed that the following mixture, given in two-teaspoonful doses, every time the nausea and burning sensation is felt, is the most effectual remedy yet used:

Take, of

Rhubarb (pulverized)..... .....2 scruples.
Saleratus do .....2 "
Peppermint-plant do .....2 "

Add half a pint of boiling water, and sweeten with loaf or white sugar.

Accessory Measures—The stomach should not be overloaded with any food or drink whatever during the treatment. If diet be required, it should be of the mildest and least irritating nature, as thin Indian meal gruel, barley water, toast water, rice water, etc.

DIVISION FIVE.

General Diseases Continued--Nervous, Etc

NERVOUS DISEASES.

Of all diseases incident to mankind, those of the nervous system are the most complicated and consequently difficult to cure. A volume would not be sufficient to point out their various symptoms in their infinity. They imitate almost every disease that falls to the lot of suffering humanity, and are seldom alike in two different persons, or even in the same person at different times. Proteus-like, they are continually changing shape, and upon every fresh attack the patient thinks he feels symptoms which he never experienced before. Nor do they only affect the body; the mind likewise suffers and is thereby rendered extremely weak and peevish. The low spirits, timorousness, melancholy and fickleness of temper which generally attend nervous disorders induce many people to believe that they are entirely diseases of the mind; but this change of temper is rather a consequence than the cause of nervous diseases.

Causes—Everything that tends to relax or weaken the body disposes it to nervous diseases; as indolence, excessive venery, drinking too much tea or other weak, watery liquors, frequent bleeding, purging, vomiting, etc. Whatever injures the digestion, or prevents the proper assimilation of the aliment, has likewise this effect; as long fasting, excess in eating or drinking, the use of windy or gaseous, crude or unwholesome aliments, an unfavorable posture of the body, etc.

Nervous disorders often proceed from affections of the mind; as grief, disappointments, anxiety, intense study, etc. Indeed, few studious persons are entirely free from them. Nor is this at all to be wondered at; intense thinking not only preys upon the spirits, but prevents the person from taking proper exercise, by which means the digestion is impaired, the nourishment prevented, the solids relaxed, and the whole mass of fluids vitiated. Grief and disappointment likewise produce the same effects. I have known more nervous patients who dated the commencement of their dis-

orders from the loss of a husband, a favorite child, or from some disappointment in life, than from any other cause. In a word, whatever weakens the body or depresses the spirits may occasion nervous disorders; as unwholesome air, want of sleep, great fatigue, disagreeable apprehensions, vexation, etc.

Symptoms—We shall only mention some of the most general symptoms of these disorders, as it would be both a useless and impracticable task to point out the whole. They generally begin with windy inflations or distensions of the stomach and intestines; the appetite and digestion are generally bad, yet sometimes there is an uncommon craving for food and an imperfect digestion. The food often turns sour on the stomach, and the patient is troubled with vomiting of clear water, tough phlegm, or a blackish-colored liquor resembling the grounds of coffee. Excruciating pains are often felt about the navel, attended with a rumbling or murmuring noise in the bowels; the bowels are sometimes loose, but more commonly bound, which occasions a retention of wind and great uneasiness.

The urine is sometimes small in quantity, at other times very copious and quite clear. There is a great straitness of the breast, with difficulty of breathing, violent palpitations of the heart, sudden flashings of heat in various parts of the body; at other times a sense of cold, as if water were poured on them, flying pains in the arms and limbs, pains in the back and abdomen, resembling those occasioned by gravel; the pulse very variable, sometimes uncommonly slow and at other times very quick; yawning, the hiccough, frequent sighings, and a sense of suffocation, as if from a ball or a lump in the throat; alternate fits of crying and convulsive laughing; the sleep is unsound and seldom refreshing, and the patient is often troubled with the nightmare.

As the disease increases, the patient is troubled with headaches, cramps, and fixed pains in various parts of the body; the eyes are clouded and often affected with pain and dryness; there is a noise in the ears and often a dullness of hearing; in short, the whole animal functions are impaired. The mind is disturbed on the most trivial occasions and is hurried into the most perverse commotions; inquietude, terror, sadness, anger, diffidence, every variety of mental disquiet prevails, every variety of bodily ailment is indicated. The patient is apt to entertain wild imaginations and extravagant fancies, the memory becomes weak, and the reason fails.

Nothing is more characteristic of this disease than a constant dread of death. This renders those unhappy persons who labor under it peevish, fickle, impatient, and apt to run from one physician to another, which is one reason why they seldom reap any benefit from medicine, as they have not sufficient resolution to persist in any one course till it has time to produce its proper effects. They are likewise apt to imagine that they labor under

diseases from which they are quite free, and are very angry if any one attempts to set them right or laugh them out of their ridiculous notions.

Diet, Treatment, Etc.—Persons afflicted with nervous diseases ought never to fast long. Their food should be solid and nourishing, but of easy digestion. Fat meats and heavy sauces are hurtful, more especially is this the case if partaken in the evening. All excess should be carefully avoided. They ought never to eat more at a time than they can easily digest; but if they feel themselves weak and faint between meals, they ought to eat a bit of bread and butter and drink a glass of milk. Heavy suppers are to be avoided. Everything that is gaseous or hard of digestion must be avoided. All liquors are hurtful, so also are strong tea, coffee, etc. People may find a temporary relief in the use of these, but they always increase the malady, as they weaken the stomach and impair digestion. Above all things, tippling is to be avoided. Whatever immediate relief the patient may feel from the use of ardent spirits, they are sure to aggravate the malady and prove certain poisons at last. These cautions are the more necessary, as most nervous people are peculiarly fond of tea and ardent spirits; to the use of which many of them fall victims.

Exercise in nervous disorders is superior to all medicines. Riding on horseback is generally esteemed the best, as it gives motion to the whole body without fatiguing it. I have known some patients, however, with whom walking agreed better, and others who were most benefited by riding in a carriage. Every one ought to use that which he finds most beneficial. Long sea-voyages have an excellent effect; and to those who can afford to take them, and have sufficient resolution, we would by all means recommend this course. Even change of place and the sight of new objects, by diverting the mind, have a great tendency to remove these complaints. For this reason, a long journey or a voyage is of much more advantage than short journeys near home.

A cool and dry air is proper, as it braces and invigorates the whole body. Nothing tends more to relax and enervate than hot air, especially that which is rendered so by great fires or stoves in small apartments. But when the stomach or bowels are weak, the body ought to be well guarded against cold, especially in winter, by wearing a thin flannel-waistcoat next to the skin. This will keep up an equal perspiration, and defend the alimentary canal from impressions to which it would otherwise be subject upon every sudden change from warm to cold weather. Rubbing the body frequently with a flesh-brush or a coarse linen cloth is likewise beneficial, as it promotes the circulation, perspiration, etc. Persons who have weak nerves ought to rise early, drink a glass of warm water, and take exercise before breakfast, as lying too long in bed cannot fail to relax the solids. They ought likewise to be diverted, and to be kept as easy and cheerful as possible, as nothing

hurts the nervous system or weakens the digestive powers more than fear, grief or anxiety.

Remedies—Though nervous diseases are seldom radically cured, yet their symptoms may be alleviated, and the patient's life rendered, at least, more comfortable, by proper medicines.

When the patient is costive, see article on "Constipation." All strong and violent purgatives are to be avoided, as aloes, jalap, etc.

When digestion is bad or the stomach relaxed and weak, the tincture or an infusion of the Peruvian bark may be used with decided advantage.

Another very valuable remedy for this difficulty is to make a tea of equal parts of chamomile flowers and lady's slipper and drink it twice a day for a considerable length of time.

Few things tend more to strengthen the nervous system than bathing. This practice, if duly persisted in, will produce very extraordinary effects. But when the liver or other viscera are obstructed, or otherwise unsound, the cold bath is improper. The best seasons for it are summer and autumn. It will be sufficient, especially for persons of a spare habit, to go into the cold bath three or four times a week. If the patient be weakened by it, or feels chilly for a long time after coming out, it is improper.

In patients afflicted with flatulence or wind I have always observed the greatest benefit from the elixir of vitriol. It may be taken in the quantity of fifteen, twenty or thirty drops, two or three times a day, in a teaspoonful of tincture of cinchona and one-half glass of water. This expels wind, strengthens the stomach and promotes digestion.

Opiates are greatly extolled in these maladies; but as they only palliate the symptoms and generally afterwards increase the disease, we would advise people to be extremely sparing in the use of them, lest habit render them at last absolutely necessary.

It would be an easy matter to enumerate many medicines which have been extolled for relieving nervous disorders; but whoever wishes for a thorough cure must expect it from regimen alone. We shall therefore omit mentioning more medicines, and again recommend the strictest attention to diet, air, exercise and amusements, combined with such tonics as tinctures of Peruvian bark, orange peel, gentian, wild cherry bark, willow bark, etc.

NEURALGIA.

Symptoms—This is a disease of the nervous system and the symptoms consist of severe paroxysms of pain, of a purely nervous character. The pain is generally very severe, more or less darting, and sometimes burning, tearing, aching and beating. In some cases, it causes the patient to start suddenly, and spasmodic twitchings of the muscles are not uncommon. Sometimes there is tender

ness of the part, on pressure, especially on slight pressure, while hard pressure often affords partial relief; friction of the hand frequently relieves, when even strong pressure seems to increase the pain. The paroxysms may come and go suddenly or gradually, and may return several times a day, or only at long intervals, and may soon cease entirely, or continue to the end of life. The disease is not confined to any particular part of the body. Perhaps it most frequently attacks the head and face, and may be confined to one small spot, or extend over half of either. When extending over half the face, for example, the line of division between the well and diseased parts is defined with wonderful accuracy. When it is in the nerves of the jaws and teeth, it causes one of the most distressing and unendurable forms of toothache. The eyes, temples, heart, spine and stomach are not unfrequently attacked, and it frequently shifts from one to another.

Causes—Very little is known of the causes of neuralgia, but it would seem that it may be brought on by whatever tends to impair or lower the vitality of the system, such as exposure to cold or damp, excessive fatigue, intemperance in stimulants, excesses of every kind, especially sexual excesses and abuses, idleness and the want of pure air and sunlight. Among other assigned causes are, decay of teeth, malaria, sleeplessness, anxiety, insufficient nourishment, and it is also said to be hereditary.

Remedies—A new and thus far unfailing remedy for the cure of Neuralgia is Plantain. Take from two to five drops of the tincture in a little water every twenty minutes, or bruise the leaves and apply. A few doses will give relief. It acts promptly.

2. *In regard to the use of Twin Leaf for the cure of neuralgia, Judge Crane of St. Louis, says: "For what it has done for my wife and daughter I would not take thousands of dollars. At times the pain was so terrible as to almost throw them into convulsions. The prescriptions of the best physicians were used in vain. They found no relief until they tried Twin Leaf which acted almost like a charm in curing them.* A decoction of the root of twin leaf, to be had at drug stores, cures neuralgia when all other remedies fail. The dose is one to two wineglassfuls three times a day. Of the tincture, use two to four teaspoonfuls. It has been used with great success by pulverizing the root and taking a dose about the size of a pea every hour or so till the pain subsides.

3. Take half a teaspoonful of sal ammoniac and four tablespoonfuls of camphor water. Mix and give one teaspoonful for a dose. Repeat several times, at intervals of ten minutes, if the pain be not relieved at once, and very speedy relief will be afforded, as many neuralgic patients can attest.

4. The following is a new remedy, and one that is reputed to be of superior efficacy in the cure of neuralgia. It is the sulphate of nickel. Have the druggist prepare it for you, rubbing one grain in a mortar, with nine grains of sugar of milk, or loaf sugar. One

dose will generally relieve the severest paroxysm of pain. If it should not, it may be repeated every one or two hours, until the pain ceases. The dose is one or two grains. Prof. Hale also reports, "Many very grave cases of neuralgia cured by it. I have used it in several chronic cases of neuralgia, and have been utterly astonished to see how readily it relieves that most excruciating pain, especially if of a periodical character."

5. Apply a fomentation of the leaves of the blue gum (*Eucalyptus*). It will often give relief in the most distressing cases; and it is said on the Pacific Coast, where it grows abundantly, that the persevering use of it, together with a tablespoonful of the tea made of the same, and taken twice a day, will often result in a radical cure of this disease.

6. Prof. J. H. Bundy says:

Take one quart of water and half pint of salt. Add the salt to the water, while boiling. Apply warm constantly. "I cured a lady with this remedy," says the doctor, "of neuralgia of the hip, of seventeen years' duration, after all other treatment had failed. I now use it more frequently and successfully than any other remedy, in this disease."

7. For neuralgia of the chest, stomach and bowels, soak the feet, before retiring to bed, in a foot bath of hot water, to which three handfuls of mustard have been added. This will often give prompt relief. Take no internal medicine while using this application.

Sciatica—Sciatic neuralgia is, perhaps, the severest form of the disease, and often very stubborn to cure. Apply an electric current from the hip to the toes, for thirty minutes. With many persons it will afford prompt relief. The large nerve of the hip is the seat of this disease.

Accessory Treatment—When the pain is excessive, and does not yield to internal remedies, an aconite-lotion is often successful. It is prepared by adding about a dozen drops of the strong tincture of aconite to four tablespoonfuls of water, and may be applied hot or cold, as found most agreeable to the patient, by means of two or three folds of linen. Or belladonna may be used in the same way. Painting the course of the nerve with the pure tincture of aconite or belladonna is often even prompter in its action.

It is all-important that the patient change his manner of living, so as to conform strictly to the laws of health; otherwise remedies will do little more than palliate his sufferings. The great essentials for health and life are sunlight, pure air, regular, active exercise, and plain, wholesome food and drink, free from stimulants and stimulating condiments. Patients who persist in shunning the light of the sun and active exercise, and live in the confined air of over-heated rooms, and eat superfine flour-bread, need not expect to be cured of neuralgia. Individuals afflicted with this disease should consult the article on "Condiments," and also that on "Bread and

its Preparation," from which valuable information may be obtained.

The following, in reference to diet, is given by a distinguished English author:

"The diet is an important part of the treatment, and should be as nutritive and abundant as the condition of the digestive organs will permit. It is especially necessary that animal fats should enter largely into the diet, and any aversion to them on the part of the patient, or inability to digest them, should be overcome; well-directed efforts of this nature are nearly always successful. The particular form of fat is not important, and that variety may be adopted which can be best tolerated. Cod-liver oil, butter, cream, or even olive oil, should be used in quantities as large as the digestive organs can bear. In some way or other, fat must undoubtedly be applied to the nutrition of the nervous system if it is to be maintained in its organic integrity, since fat is one of the most important, if not the most important, of its organic ingredients. * * * To Dr. Radcliffe belongs the merit of having been chiefly instrumental in bringing forward this therapeutical fact in this country, and it is one which I have had repeated occasions to verify."

NIGHTMARE.

In this disease the patient, in time of sleep, imagines he feels an uncommon oppression or weight about his breast or stomach, which he can by no means shake off. He groans, and sometimes cries out, though oftener he attempts to speak in vain. Sometimes he imagines himself engaged with an enemy, and, in danger of being killed, attempts to run away, but finds he cannot. Sometimes he fancies himself in a house that is on fire, or that he is in danger of being drowned in a river. He often thinks he is falling over a precipice, and the dread of being dashed to pieces suddenly awakes him.

This disorder has been supposed to proceed from too much blood, or from a stagnation of blood in the brain, lungs, etc. But it is rather a nervous affection, and arises chiefly from indigestion. Hence we find that persons of weak nerves, who lead a sedentary life, and live full, are most commonly afflicted with the nightmare. Nothing tends more to produce it than heavy suppers, especially when eaten late, or the patient goes to bed soon after. Wind is likewise a very frequent cause of this disease; for which reason those who are afflicted with it ought to avoid all flatulent food. Deep thought, anxiety, or anything that oppresses the mind, ought also to be avoided.

Treatment—Persons may free themselves from this difficulty by removing acidity of the stomach. They should not use food

that is difficult of digestion, and should not eat late and heavy suppers; take regular exercise daily, keep lively company, and be temperate. These are important measures and should be attended to. They should not lie on the back, and should have some one remain near them, so that they can be immediately awakened on their moaning; for the sooner a person is roused from a paroxysm of nightmare, the better. Where persons are subject to nightmare from flatulency and acidity of the stomach, the following, taken before retiring at night, will usually prevent an attack: Essence of peppermint, five drops; baking soda, one-fourth teaspoonful; mix, and take at a draught.

POLYPUS.

Polypus is generally located either in the nose, ear, throat, womb or rectum. When located in the nose, there is a nasal sound in the voice; the patient acquires the habit of keeping his mouth open to facilitate breathing; there is difficulty of swallowing liquids; the nose is enlarged externally on the affected side, and on looking up the nostril the polypus may be seen. In consequence of the stuffy symptoms which a polypus occasions, it may at first be mistaken for a cold in the head. But on the nose being violently blown, the polypus descends and appears near the orifice, causing the obstruction to return, contrary to the usual result of such an operation.

Remedies—1. Procure at the drug-store about two teaspoonfuls of powdered blood-root, and snuff a little up the nostril containing the polypus, several times a day. If taken in the early stages, when the growth is but small, polypus may be easily cured in this way, and with but little pain. If it cannot be sufficiently applied to the tumor by snuffing, it must be applied in some other way. The powder must be freely applied to the fungous growth in the nose. It may be applied with a rag wrapped on a probe of any kind, by wetting the rag and then dipping it into the powder.

Where the tumor is quite large, and this method does not prove effectual, it may be necessary to introduce a pair of forceps, seize the tumor as far up as possible, and compress so hard as to disorganize it; or by turning the forceps to twist it off, and afterward apply the powder to prevent a re-growth.

2. It is said that powdered poke-root has been used with similar results to that of blood-root.

3. Another method of removing polypus is by tying a string, or ligature, around its neck, which will cause it to fall off in a short time.

4. Bind a bit of cotton on a probe or on a stick, saturate it with pure nitric acid, press out all the superfluous acid and apply

thoroughly to the parts every day for three or four days. It cures though it may be a little painful.

The womb is sometimes affected with polypus, giving rise to frequent discharges of blood, and when large, occasioning bearing-down sensations, a fetid, vaginal discharge, and a gradual failure of the general health. In such cases, the female should at once apply for aid; and none but a medical man should treat the case.

NIGHT-SWEATS.

Remedies—1. When the herb called five-finger (*Potentilla Canadensis*), can be obtained it is seldom that any other remedy will be needed. It is to be taken freely, in decoction, either boiled in water or in milk.

2. The elixir of vitriol is an excellent remedy for night-sweats. Fifteen drops, three times a day, should be taken in a little water.

3. The juice of the lemon is another cure for this difficulty. Take the juice of two of ordinary size, in divided doses, during the day.

4. Sage-tea is an old, yet a popular remedy for night-sweats. It should be taken cold, twice a day. The body should be sponged at the hour of retiring, with vinegar and water, alum dissolved in whisky, or some similar astringent wash.

5. The night-sweats of consumption are often modified and sometimes removed by rubbing hog's lard into the skin every night, if sleeping in the same woolen night-shirt, which becomes impregnated with the oil.

PALSY OR PARALYSIS.

Paralysis is a disease principally affecting the nervous system, characterized by a loss or diminution of motion or feeling, or of both, in one or more parts of the body. When one entire side of the body, from the head downward, is affected, it is distinguished among professional men by the name of *Hemiplegia.* If the lower half of the body be attacked by the disease, it is named *Paraplegia;* and, when confined to a particular limb or set of muscles, it is called paralysis.

Causes—This complaint may arise in consequence of an attack of apoplexy, or by anything which prevents the passage of the nervous power or influence from the brain to the organs of motion; and also by pressure on the nerves, in consequence of dislocations or fractures of the bones, wounds or other external injuries. It is also caused by the handling or using of white lead, as in painting; by the poisonous fumes of metals, and by whatever

has a tendency to relax, weaken or enervate the body; hence those who lead a sedentary, luxurious and irregular life, or such as are engaged in intense studies, or labor under great distress or anxiety of mind, are subject to paralysis.

Symptoms—Paralysis usually comes on with a sudden and immediate loss of the motion and sensibility of the parts; but in a few instances it is preceded by a numbness, coldness and paleness, and sometimes by slight convulsive twitches. When the head is much affected, the eye and mouth are drawn on one side, the memory and judgment much impaired, and the speech is indistinct and incoherent. If the disease affects the extremities, and has been of long duration, it not only produces a loss of motion and sensibility, but likewise a considerable flaccidity and wasting away in the muscles of the parts affected.

The attack of it is sometimes unexpected, but more commonly it is preceded for several days, or even weeks, by one or more of those symptoms formerly described as the forerunners of apoplexy; such as giddiness, drowsiness, numbness, dimness of sight, failure of the powers of mind, forgetfulness, transient delirium or indistinctness of articulation. For the most part, the paralytic seizure is sudden; but occasionally the approaches of the disease are made more slowly; a finger, a hand or an arm, the muscles of the tongue, of the mouth or of the eyelids, being first affected.

Remedies—1. It will generally be necessary to make use of injections, for the bowels are usually much constipated, and sometimes the lower portion of the body is so paralyzed that purgatives will not act upon them. Take a cup of meal or a tablespoonful of starch, a gill of lard or sweet oil, and a quart of boiling water. As soon as cool enough, use half of it, by means of a large syringe, and the balance after the first has passed away. This seldom fails to induce evacuation. In recent cases, keep the parts affected well covered with flannels, and use a great amount of friction with the hand; also rub them three times a day, with a stimulant made of salt and cayenne, infused in vinegar.

2. The Indian hemp (*Apocynum Cannabinum*) is an excellent remedy in all paralytic affections. The best way to use it, is in the form of decoction. One ounce of the powdered or bruised (dry) root may be steeped for an hour in one pint of water, and the patient take two tablespoonfuls three times a day. It is also used in extract, the dose of which is three grains, once a day.

3. Electricity is a remedy almost universally employed in the cure of palsy, and often with the happiest effect. It ought, however, to be used with care, applying it only in slight shocks called Faradaism, and often repeated. It is also recommended not to apply it to the head, as it is supposed that danger might arise from its application to that part. Galvanism has likewise been employed and highly extolled in the treatment of this complaint.

4. Nux vomica is a medicine that often exerts great power,

and has a positive curative influence on many forms of paralysis, and often produces very prompt results in the more chronic forms of this disease. However, its use may have to be persevered in for some time, with such other auxiliary measures as may, from time to time, be necessary. It should be used in the form of the tincture, five drops of which should be added to an eight-ounce bottle of water. Shake the contents well together, and it is ready for use. Dose, two teaspoonfuls, morning and evening. When improvement begins to appear, the medicine should be limited to once a day; then to every other day, and thus gradually discontinued, until the patient has entirely recovered.

5. Take common oats, pound in a mortar and put a coffee cupful in a pint of alcohol and water, half and half; let it stand fourteen days, then take a teaspoonful three times a day. This has often proven as effective as it is simple.

Accessory Treatment—Electricity or Galvanism, as above stated, judiciously employed after the acute inflammatory symptoms have subsided, is an agent of great value. The cold *douche*, bathing with salt-water, or, if the patient be capable of the effort, sea-bathing, tends to promote the nutrition of the spinal marrow.

If the paralysis has been of some standing, and all pain, dizziness or irritation in the head has been removed, regular exercise of the part paralyzed becomes not less important than medicine. Let an assistant, two or three times a day, for a few moments, bend and extend the paralyzed limb or part, in every direction, and, if the muscles are contracted, gradually stretch them out; also, with the open hand, slap repeatedly the palsied part or limb, over its entire surface. After thus exercising the part for a few days, the patient, by an effort of his will, may try to assist in moving the weak part or limb, but he should never attempt to move it except when the assistant is moving it, until he feels that he has gained sufficient control over the part to be able to move it readily, without assistance. As soon as the patient is able to move the part without assistance, let him exercise it regularly himself, two or three times a day, but never to the extent of fatigue, or until there is increased feeling of weakness. His assistant may continue to rub and slap the part; and, as strength returns, he may offer a little resistance to the movements of the patient, and this may be cautiously increased until the part becomes strong.

FALLING OF THE PALATE (Uvula).

Remedies—1. In cases of falling of the palatè, use freely a strong decoction of white-oak bark, as a gargle. A little alum may be dissolved in it, to make it still more astringent. Or use,

for the same purpose, a mixture of cayenne pepper and vinegar, as sharp as can well be borne.

2. In the first stages of this difficulty, the application of cold water is sometimes of great benefit. Envelop the throat with a napkin dampened with cold water, and envelop this again with twice the thickness of dry cloths. This often removes the trouble in a short space of time.

3. Another means of relief, in this difficulty, is a strong tea made of crane's bill, employed as a gargle several times a day.

4. In many cases, a lengthened palate may be reduced to its natural size by means of astringent gargles and other things mentioned above, but it will generally return again and again, upon the appearance of any fresh cold; and, therefore, the most certain cure is to cut it off. To do this, take hold of it with a pair of common forceps, and, having stretched it down a little, clip it off above the forceps with a pair of curved scissors; or straight scissors may answer the purpose. Nearly the whole of it should generally be removed. To take off only a part of it, leaves a stump, which is often more objectionable than the whole organ. Its removal never injures the speech in the least.

PILES (Hemorrhoids).

Causes—The predisposing causes are, sedentary and indolent habits; luxurious living, especially the use of highly seasoned food, wines and spirits; tight lacing; pregnancy; constipated bowels, and diseases of the liver. Residence in moist, warm and relaxing climate; soft, warm beds or cushions, and over-excitement of the sexual organs, may also be classed among predisposing causes. The exciting causes include anything which irritates the lower bowel, such as straining at stool, hard riding, and the use of strong purgatives, especially aloes and rhubarb.

Symptoms—A sensation of fullness, heat, and perhaps itching is felt about the anus. The swelling increases until small tumors form, which are sore and painful. These may be external and visible or internal, and are often of a bluish color, and when inflamed they are very sore and painful to the touch. There is frequently a discharge of blood, especially from internal piles, and such discharges often return repeatedly until a habit is established, and there is a feeling of fullness before and relief after such discharges. Piles that do not bleed are called blind; this variety is apt to take on inflammation, when they become full, appear ready to burst, and are so very sensitive that the patient can scarcely sit, walk or lie.

Remedies—1. Make a thin paste of raw linseed oil and pure white lead, that shall be thin as cream in consistency.

Anoint the parts when protruding, twice a day. We have known obstinate cases cured after three applications. *This is the king of remedies.*

2. In the early stages of this disease, the stone-root *(Collinsonia Canadensis)* is an effectual remedy, and will often cure even in the more advanced stages. Dose, of the fluid extract, from twenty to thirty drops; of the tincture, the same, three times a day. These preparations can be procured at all drug-stores, and may be taken in a little honey or sirup.

3. Give the patient freely, three times a day, a decoction made in the winter from the root of the black-currant; in the summer from the twigs. This remedy was first published in Europe by an aged physician, after retiring from practice, as his most successful remedy for bleeding piles.

4. Dr. D. W. Raymond, of Cincinnati, says, "Equal parts, by weight, of tannin and glycerine, will cure the piles, and that very speedily, by anointing them with it once, and, in severe cases, twice a day."

5. The following is an old remedy, but a popular one with some medical authors: Give, morning and evening, eight to ten drops of the oil of Canada fleabane (*Erigeron Canadensis*), on a little sugar. When the piles are down, mix one part of this oil with four parts of castor oil, and anoint them twice a day. This herb is known by the various names of Canada fleabane, horse-weed, butter-weed and pride-weed.

6. Dr. Hammond, of California, gives the simple remedy of common table-salt, as one that is unsurpassed for bleeding piles. (See "Medical Uses of Salt.")

7. Sometimes, when they have been neglected or improperly treated, they become so seated and enlarged that it is necessary to remove the tumors. Should this happen, a piece of thread or silk tied around the tumor and tightened from day to day will cause the tumor to separate in about a week and a cure results.

Spanish Cure for Piles—Dr. C. M. Pomroy writes:

I obtained a remedy for the piles when in Spain and have used it for eleven years, or until I retired from practice, and I have never failed, in a single case, to effect a cure in a few days. In fact, so sure was I of its power that *if any patient who was a resident of the city* (New York) *expressed doubts or misgivings because his case was of long standing, I would offer to make no charge unless he was completely cured.*

Mr. Barrett, of Chicago, an inveterate sufferer from piles, *was cured with this remedy in a few days. When he commenced to use it he could not walk.*

A Mrs. Slack says: *"After I had used the remedy 3 or 4 days I did not know that I had ever been afflicted. I know several others who likewise have been cured with it."*

One of the important features of the remedy is that it costs but a trifle. Take one tablespoonful lard, beat to consistency of ordinary

cream, and to this add about half a teaspoonful of calomel. Mix thoroughly. Apply twice a day on cotton or with the finger.

Accessory Treatment—Patients should avoid coffee, pepper, spices, stimulating, highly seasoned or indigestible food of every kind, and the habitual use of beer, wine and spirits.

If a patient expects a permanent cure of this disease, he must shun the causes which have produced it, or he can never obtain anything more than palliative relief from the best remedies.

Sedentary habits and much standing, on the one hand, and extreme fatigue on the other, are prejudicial; as is also the use of *cushions* and feather-beds. The pain attending blind piles may be relieved by washing in cold or tepid water, whichever is found more agreeable. Bleeding piles may be relieved by drinking half a tumblerful of cold water, and then lying down for an hour. The horizontal position should be maintained as much as possible, that being most favorable to recovery. When piles protrude, the use of petroleum-soap is recommended.

Great relief and permanent benefits will also follow an occasional injection of about a pint of quite warm water up the lower bowel. This acts beneficially, by constricting the blood-vessels, softening the feces before evacuation, and by giving tone to the relaxed structures. Injections of water are also of service after each evacuation, when any feculent matter remains; at the same time the application of water exercises a very favorable influence on the blood vessels and nerves of the bowels. As a rule, warm injections are most suitable for patients of a full habit of body, and cool ones for those of relaxed constitutions.

When piles are excessively sensitive or painful, the patient should sit over the steam of hot water, keep his bed or recline during a great part of the day on a couch. Strict cleanliness is also essential. The parts should be frequently washed with soap and cold water; or, when the tumors are inflamed and painful, with warm water. A piece of sponge and tepid water should in such cases be substituted for paper. A warm or vapor-bath may be occasionally used at night, when the liver is inactive and the skin dry and harsh. It should be followed in the morning with a cold bath, or the body should be rapidly rubbed, first with a wet, cold towel, and then with a dry one.

The Cranberry a Cure for Piles.—The Japanese pronounce the cranberry juice a complete specific for the cure of piles. Their mode of using it is to cook the berries similar to preparing them for the table. They are to be eaten, a fruit-dishful at meals, twice or three times a day.

We have already known in this country many surprising and unexpected cures effected with this simple remedy. This is another proof that nature has provided and placed at hand remedies for ALL OUR maladies.

For Itching Piles—Bismuth, 6 drams; Calomel, 4 drams; mix it with vaseline, and apply at night.—*Dr. Madison*, Troy, N. Y.

PLEURISY (Pleuritis).

The true pleurisy is an inflammation of that membrane called *the pleura*, which lines the inside of the chest.

Causes—The pleurisy may be occasioned by whatever obstructs the perspiration, as cold, drinking cold liquors when the body is hot, sleeping out of doors on the damp ground, wet clothes, plunging the body into cold water, or exposing it to the cold air when covered with sweat. It may likewise be occasioned by drinking strong liquors, by the stoppage of usual evacuations, as old ulcers, issues, sweating of the feet or hands, the sudden striking in of any eruption, as the itch, the measles or the small pox. Keeping the body too warm by means of fire, clothes, etc., renders one more liable to this disease. Pleurisy may likewise be occasioned by violent exercise.

Symptoms—Pleurisy usually commences with chilly sensations, followed by heat and thirst. After a few hours the patient is seized with a sharp, acute pain in one side, which gradually extends toward the shoulder blade, and toward the fore-part of the breast; the pain usually increases, and sometimes becomes very violent. It may or may not be attended with coughing and expectoration. The matter that is coughed up is generally more or less mixed with blood.

Remedies—1. The pain can usually be relieved in a very short period of time, and the pleurisy entirely cured in twenty-four hours, by the following means: Take a piece of lime about the size of an orange, wrap a moistened cloth around it, and cover this with several thicknesses of dry muslin or cloth. Place one, thus prepared, on each side of the patient, and by both thighs; they will soon induce copious perspiration, which is the object sought.

2. If the lime is not at hand, use the vapor-bath sweat, by placing a pan, half or two-thirds full of hot water, under a chair, with the patient on it, having a comfort around him; then put into it occasionally a hot stone or brick, and continue until a free perspiration is produced, and held for from fifteen to twenty minutes, according to the severity of the case. Afterwards, keep constantly on the affected side a fomentation of hops or catnip, as hot as can be borne, and renew it as fast as it becomes even tepid. With this, the treatment is complete.

When it is convenient the spirit-vapor bath, as given in the "Hydropathic Division," is perhaps preferable to either of the above means of producing perspiration.

3. Dr. Buchan, Professor in the Royal College of Physicians,

of Edinburgh, Scotland, says that he regards the Seneca snake-root as an infallible remedy in the cure of pleurisy. Add one ounce of the root to one and a half pints of water. Boil to one pint. Dose, two tablespoonfuls, three times a day. If it should cause any sickness of the stomach, lessen the dose, or add one-half a tablespoonful of pulverized cinnamon to each dose.

This is comparatively a new remedy to the public, but one that can always be relied on.

4. The pleurisy-root is a very popular remedy in this disease, and is regarded as a specific. The warm tea is to be taken freely.

5. A new remedy, known as the *Jaborandi*, is a prompt agent for the relief of pleurisy. *It is one of the greatest sweating medicines known.* Dose, of the fluid extract, half a teaspoonful every hour, until free perspiration is induced, which usually affords relief very soon.

Accessory Treatment—Applications of heat, in the form of poultices, flannel wrung out of hot water, etc., applied to the painful part, will often afford immediate relief. Dr. Roberts, of University College, treats pleurisy by strapping the affected side firmly with broad pieces of common plaster, placed obliquely to the direction of the ribs, so as to secure *rest.* Many cases, it is said, have been cured very quickly by this means.

Bleeding in every form should be avoided. Perfect quiet in a bolstered posture should be secured. The diet should be light, gruel, arrow-root, broth; frequent sips of cold water will allay thirst.

PRICKLY HEAT.

Prickly heat occurs chiefly in hot climates, attacking the parts covered by the clothes, accompanied by a peculiar tingling and pricking; the pimples are of a vivid-red color, about the size of a pin-head, but there is no redness of the skin generally.

A tepid bath may be employed daily for the relief of the itching and burning, and after the skin has been well dried, the seat of the eruption should be rubbed with *olive-oil* or *cold cream.* In chronic cases, the surface of the eruption may be moistened with water, and then rubbed over lightly with *glycerine* once or twice a day. Patients affected with this disease should use very little salt.

Mix equal parts sulphur and cream of tartar and take a teaspoonful at night.

BLOTCHES AND PIMPLES—FLESH-WORMS—ERUPTIONS ON THE FACE (Acne.)

These are common names of very frequent eruptions, consisting of small pimples, often containing matter, occurring chiefly on the face.

Causes—Intemperate use of spirituous liquors, excessive indulgence in eating, neglect of cleanliness, sexual abuse, cold, menstrual irregularities, physiological changes (as puberty), the use of cosmetics, and chronic inflammation of the stomach and bowels, are the chief causes of this difficulty.

The Worm-Pimple, with Black Points—These are very unsightly, giving the skin an oily, greasy and dirty appearance. Their origin is to be traced to the obstruction of the glands placed immediately under the skin, from which a minute pipe carries off the perspiration. This moisture, not getting free egress, thickens and closes the pores; it then catches the dust and other impurities, and soon becomes black. If squeezed violently between the nails, this thickened matter will be driven out, in the form of a yellowish-white worm, with a black head, which is nothing more than the extraneous matter just mentioned. They should be thoroughly pressed out of every pore, or there they will remain, and no cosmetic will dislodge them.

Remedies—1. To one teacupful of warm water, add a tablespoonful of borax, and apply with a soft cloth or sponge, night and morning. This will often remove them and render the skin smooth.

2. In cases where this fails, put a teaspoonful, each, of powdered borax and sugar, in the juice of a lemon, and apply this as above.

3. Another simple means, which is often effective, is to wash with tepid water, using light friction with a soft towel; after which apply a little cold cream, and repeat twice a day.

There being different forms of these pimples, of a different origin, it will be necessary to resort to different means for their removal. Among which the following have been used with success:

4. Take one ounce of bitter almonds and one ounce of barley-flour; mix them with honey until they form a smooth paste, and anoint the skin at night. Gentle friction, either with the hand or with a soft glove, is also good.

5. When the eruptions are red, they are caused by a small insect working under the skin. A very excellent remedy in this case is to take sulphur, and after the usual washing in the morning, apply it on the face dry, and rub it thoroughly with the fingers. Then wipe it off with a dry cloth.

Accessory Treatment—Hygienic measures and the correction of faulty habits are of the first importance in this difficulty. Indigestion, menstrual derangement, debility, or any other constitutional or local affection should be corrected.

Daily out-of-door exercise is favorable to the cure. Soft-water baths are of great value in this affection, although on first commencing them they may appear to aggravate the disease. The parts should be frequently washed or douched with hot water. This difficulty, according to Dr. Ringer, is efficiently treated by washing

the face or other part affected with hot water and plenty of soap, several times a day. If by this treatment the skin becomes rough, red and painful, it should be well rubbed with glycerine and starch after each washing. All cosmetics, paints, etc., must be avoided. Vigorously brushing the nodules with a tooth-brush and soft-soap is said to be exceedingly efficacious. The patient should live temperately and abstemiously, avoiding all stimulants, tea, coffee and liquors, and using but very little animal food. The bowels should be kept regular, and the surface of the body should be bathed with a weak alkaline solution daily, composed of water and soda, or saleratus; or, in their absence, soap may be employed. As articles of diet, uncooked fruits and vegetables are recommended.

PROUD FLESH.

Remedies—1. Burnt alum is an old but good remedy. Sprinkle it on freely, twice daily. Many use sugar, in place of alum, and pronounce it unsurpassed for this difficulty.

2. Boil half a pound of bitter-sweet root in a pint and a half of water, for an hour. Strain, and add two tablespoonfuls of lard. Then boil until the remainder of the water is evaporated, and you have an ointment that will remove proud flesh in twenty-four hours. It will also cleanse any ulcer or sore of all foul matter that is offensive. Besides, it is excellent for healing purposes.

3. The clear carbolic acid is unsurpassed for removing proud flesh. It not only destroys it, but stimulates a healthy action of the part, and promotes granulation, through which process the wound is healed. It should be applied on cotton, saturating a portion large enough to cover the part, and leaving it on for an hour or two. Renew and apply it until the proud flesh is completely destroyed. Powdered blood-root is also very highly recommended for the same purpose.

PNEUMONIA--INFLAMMATION OF THE LUNGS.

This disease consists of inflammation of the air-cells and the substance of the lungs. There is almost always more or less inflammation of the bronchial tubes, and sometimes of the pleura, or membrane encasing the lungs.

Causes—Severe or long-continued exertion or over-fatigue, either alone or combined with cold. Brief exposure to cold, however intense, is rarely sufficient to excite this inflammation; it is rather a prolonged and deep-reaching cause of cold that can produce this effect. If a person gets thoroughly wet and remains long in wet clothes, or lies out on damp ground, or is a sentinel standing or slowly pacing for hours in a cold wind, the chill goes to the heart, as it were, and paralyzes the deep circulation, and pneumonia is likely to be the result.

Symptoms—Pneumonia generally comes on insidiously, with restlessness and feverish disturbance, and sometimes has made great progress before the true character of the disease has been discovered. There is deep-seated, dull pain beneath the breast-bone or shoulder-blade; a great feeling of illness; frequent, short cough, with expectoration of viscid matter of a green, yellow or pale color, sometimes as the disease progresses, tinged with blood, which forms such tenacious masses that inversion of the vessel containing them will not detach them. Profuse green expectoration is a serious symptom. The breathing is hurried and difficult; the skin hot, especially in the regions of the ribs and armpits; there is no moisture in the nostrils, which "flap," and the eyes are tearless, there exists great thirst; interrupted, hesitating speech; the pulse is variable, being sometimes rapid and full, at other times hard and wiry, or quick and weak; the urine is scanty, red and sometimes scalding; and the patient lies either on the affected side or on his back. If the disease is unchecked, the face often exhibits patches of redness and lividity; the blood-vessels of the neck become swollen and turgid; the pulse weak, irregular or thready; and the patient may sink either from exhaustion or from obstruction of the lungs.

Remedies. 1. *Make a poultice by frying ten or twelve onions for two minutes over as hot a fire as possible without burning, then add an equal quantity of rye meal or flour, and vinegar enough to make it into a thick paste. Let it simmer for at least ten minutes, adding vinegar if necessary, and stirring often. Place this in a cotton bag large enough to cover the chest, and apply as hot as can be borne. Make a second poultice and as soon as first one is cool slip the fresh hot one in its place. Keep on heating and changing these poultices until the patient perspires freely and feels relieved. Sometimes relief is almost immediate, but the hot poulticing should be continued for from two to five hours. Care must be taken to prevent cool drafts striking the patient and the room should be kept warm. This is one of the simplest and yet most reliable and certain remedies known for this dreaded disease.*

In mild cases a hot mush poultice may be substituted with good effect. It should be put in thin muslin bags and placed over the entire chest. For a child, both chest and back should be covered.

4. Dr. Frost gives the following: In the first stage of this complaint, the patient should take very small doses of the tincture of the root of aconite, as the following: Five drops are to be added to a tumblerful of water, and mixed well with a spoon. Then, while the fever is high, with severe pain in the chest, rapid breathing with or without thirst, give the patient, if an adult two teaspoon-

fuls of this solution, every half-hour or hour, until there is an abatement of the symptoms, and he begins to sweat. The medicine should then be taken at intervals of four hours, and continued until all signs of fever, pain and difficult breathing have subsided.

5. Dissolve equal parts of lard and spirits of turpentine together, saturate a woolen cloth in it and apply to the chest. Its good effects will soon be manifest by the patient first being relieved of difficult breathing. Mrs. Doctor Campbell writes to a medical journal: "This is a very superior remedy for pneumonia. I think it was the means of saving my life."

6. The *Jaborandi* is now used in the first stages of this affection. It is a new remedy, but is gaining much notoriety, on account of the signal cures it has performed. This herb is prepared in different forms, but the one most commonly employed is the fluid extract. Of this, give thirty drops, for the first dose. Afterwards, fifteen to twenty drops, every four hours, until free perspiration is produced. If much pain and fever are present, on the following day, repeat as before, and continue each succeeding day, until complete relief is obtained.

7. Use warm inhalations of steam, envelop the chest with hot poultices or cover with cotton batting, give brandy in tablespoonful doses four or five times a day. This is the latest and most successful treatment. As nourishment, such as milk punch or egg-nog should be given.— *Dr. L. B. Harris, London.*

Accessory Measures—The diet should be light, as barley water, mucilage of elm, lemonade, orange-juice, Indian-meal gruel roasted apples, panada, etc. The patient should be kept as still as possible during the disease, and not be permitted to speak more than is necessary in order to make known his wants; and the sick chamber should be kept well ventilated and at a proper temperature. Great care should be taken during convalescence to prevent a relapse, which is very apt to occur on very slight causes, and may lead to consumption. If, during convalescence or afterwards, a troublesome cough remains, the following should be given: One teacupful of good cider-vinegar, one-fourth of an ounce of balsam of tolu, the same quantity of gum-Arabic, and three tablespoonfuls of refined sugar. Dissolve them ver a slow fire. Molasses or honey may be substituted for the sugar. The dose is a teaspoonful, three or four times a day, or whenever the cough is severe.

The patient should be bathed or sponged with water, at such a temperature as is most agreeable to him, once a day; and when there is much fever, at least twice a day. At the same time, care should be exercised not to permit any chilly sensations to be experienced, and to dry well with abundance of friction.

In this disease it is admitted by medical men that a majority of the more severe cases prove fatal; whereas, the reverse should be the rule—a majority should recover. They doubtless would, were it not for the excessive dosing and drugging which, in this disease,

as in many others, is yearly sweeping its thousands and tens of thousands to premature graves, who might otherwise have lived to a ripe old age. We therefore beseech you, when you summon medical aid, let it be a physician who knows how to administer medicine.

QUINSY—INFLAMMATION OF THE THROAT.

This is a disease of the tonsils and mucous membrane of the throat. It is most common among young persons.

Causes—The most common causes are, a sudden cold, checking of the perspiration, wet feet, damp beds and moist, cold air.

Symptoms—The more common symptoms are sore throat, with pain in swallowing, redness and swelling in one or both of the tonsils, dry throat, foul tongue, hoarseness, difficulty in breathing, and more or less fever. As the disease advances, the throat swells, and swallowing and breathing become more difficult; the dryness of the throat and the thirst increase, the tongue swells, and is covered with a dark, crusty coat; the pulse is full and hard and very frequent; hearing becomes impaired, and sometimes the throat swells to such an extent that swallowing is almost impossible and the patient is threatened with suffocation. The disease generally yields gradually and goes away, but sometimes it ends in suppuration; that is, gathers and breaks.

Remedies—1. A good method of treatment is to boil, for twenty minutes, a handful of hops or sage in two pints of water and half a pint of vinegar. Inhale the vapor into the throat and lungs, as warm as it can be borne, by means of a teapot or an inhaler. If the throat is much swollen, simmer a small quantity of sage in a little lard, and give the patient from a teaspoonful to a tablespoonful, three or four times a day, taken warm. At the same time mix a small quantity of this with a large onion poultice, and apply to the throat, and frequently renew. If this is perseveringly used, it will give timely relief.

2. The following is another mode of treatment, used by many, and highly recommended: In mild cases, a strong tea of witch-hazel leaves or golden seal, with a little cayenne in each dose, occasionally repeated, will generally remove it. In worse cases, the throat should be gargled with the same article, at the same time keeping the neck warm by the application of a flannel cloth or woolen cravat. The front part of the neck, or throat, may also be bathed with pepper and vinegar, and the patient should inhale the vapor of vinegar and water, which may be applied by an inhaler, or by putting the vinegar and water, hot, into a coffeepot, and then dropping a small red-hot stone into it, closing the lid, and holding the spout near the face of the patient, who should inhale the steam as hot as he can bear it. This process should be often performed, particularly where there is much pain and difficulty of breathing

Should the disease increase, and exhibit symptoms of suppuration, so as to threaten suffocation, the tongue must be pressed down with the finger or handle of a spoon, and the swelling punctured with a gum-lancet.

3. M. Velpau, of Paris, highly extols the use of alum for a gargle in quinsy and all kinds of sore throat. Take alum, one ounce; barley-water, four ounces; apply a little of the alum, fine, on the parts inflamed, with a little stick or brush, or the finger. Many cases have been successfully cured by this simple treatment.

A gargle made of weak lye has been found remarkably efficacious where other means have proved useless, particularly where persons have been subject to the quinsy, and when it assumes a chronic character.

Accessory Treatment—During the course of the disease, the body should be bathed twice a day, and the feet frequently, in a tepid bath of weak lye-water. This is especially desirous, when there are high-fever symptoms.

After the disease has been cured, a relapse must be guarded against, by avoiding exposure to cold, and by wearing flannel about the neck for several days. Those who are subject to this disease may prevent it attacking them by daily sponging the throat and neck with cold water, using a light but nutritious diet.

No animal food, or food in substance, should be allowed until the inflammation is subdued—simply rice-water, gruel, arrow-root, etc.

ACUTE RHEUMATISM (Rheumatismus Acutis).

Symptoms—Acute rheumatism is usually ushered in with feverish disturbances, followed by a local attack of inflammation about one or more of the larger joints—the shoulder, elbow, knee, ankle or the covering of the valves of the heart, etc. Exposed joints appear to be more prone to attack than those that are covered, the larger more frequently than the smaller, and the joints of the hands more frequently than those of the feet. Sprained or otherwise injured joints are particularly liable to suffer. Fever often precedes the local inflammation one or two days; sometimes they occur simultaneously, while in others, inflammation of the joints precedes the fever.

The affected joints are swollen, tense, surrounded by a rose-colored blush and acutely painful; pain is a more constant symptom than swelling, and swelling than redness. The pain has many degrees of intensity, is generally intermittent, abates somewhat in the day, but is aggravated at night, and in all cases is increased by pressure, so that even the touch of the medical attendant or nurse, or the weight of the bed-clothes can scarcely be borne. Often the patient remains fixed, as it were, in one posture, from which he

cannot or dare not move. The skin is hot, but covered with a sour, offensive sweat, and so highly acid as to redden litmus paper. The perspirations, although unattended by immediate relief, is one of nature's modes of elimination; for the pains are always aggravated, and the constitutional symptoms intensified, if they become suppressed. It is only when the perspirations lose their peculiarly sour character that they become useless. The urine, in acute rheumatism, is scanty, often resembling porter in color, of high specific gravity, and deposits, on cooling, deep-colored sediments. The pulse is round and full, varying from 90° to 120°; the tongue loaded with a yellowish-white mucus; the head being but slightly affected. The usual absence of headache or delirium distinguishes acute rheumatism from the continued fevers. Intense thirst is a common feature; the appetite is hard to please, and the digestive functions are seriously impaired.

Rheumatism is usually erratic; it often suddenly quits one joint to appear in another, and then in another; afterwards traveling back, perhaps to its original seat; the development of inflammation in one joint being often accompanied by its rapid subsidence in another, this alternation occuring many times during an attack.

Causes—The predisposing cause is some morbid product in the blood, a product probably of unhealthy assimilation. This morbid matter with which the blood is loaded constitutes that predisposing cause without which, it is probable, the disease would never occur. Hereditary predisposition exists undoubtedly in many persons. The suppression of an eruption or rash, as measles, or the the sudden stoppage of dysentery, may also act as a predisposing cause.

The exciting causes are exposure to cold and wet, especially evaporation from wet or damp clothes, causing chill. This is no doubt an explanation why the disease is most common among the poorer classes of society, who cannot protect themselves so effectually as their wealthier brethren. The cold probably excites an attack of acute rheumatism, by arresting the secretory functions of the skin, by means of which, in health, morbid substances in the blood are often removed; now, however, the functions of the skin being deranged, unhealthy principles accumulate in the blood, and rheumatism results. Mere cold, however, is not so much a cause of rheumatism as extreme atmospheric changes. Hence, it is found that it does not prevail most in the coldest regions of the globe, but rather in those climates, and during those seasons, which are damp and changeable.

Remedies—1. The simple remedy of lemon-juice has produced some surprising and unexpected cures of rheumatism. Take the juice of half a lemon before each meal, and before retiring each night. It may be diluted with water before taking, or used in the form of strong lemonade, and, at the same time, apply the juice twice a day externally. When this method disagrees, either

of the two following formulas may be substituted: Lemon-juice (strained or filtered) and molasses, equal parts; dose, a tablespoonful three or four times a day. A correspondent of the *Medical Circular* vouches for the relief he has experienced in the liberal use of *lime* or *lemon-juice*, while laboring under the paroxysms of rheumatism. By repeated indulgence in the above simple acid, for the space of three days, avoiding all stimulating liquids, the most confirmed rheumatism will, he says, relax, and the tone of the muscular and nervous system be restored to its usual character. As before stated, there is perhaps no article obtained from the vegetable kingdom that is more valuable in medicine than the lemon.

2. In the early stages of this disease, obtain the *Jaborandi*, the fluid-extract of which can be procured, usually, at the drug-stores. Of this give, to an adult, thirty drops for the first dose. After which, give fifteen drops every two hours, until free perspiration is induced. The first dose may be sufficient, but if it is not, repeat on each succeeding day, until relief is obtained. This is a new remedy, but its use has been attended with good results.

3. The jimson-weed (*Stramonium*) is an article of great efficacy in all rheumatic affections. Prof. John King, of Cincinnati, says:

"The best application that I have ever used, is the fresh leaves of stramonium, bruised, moistened with a little water, and applied over the parts, renewing it three or four times a day. In some very violent cases in which I have employed this agent, the pain has ceased in fifteen minutes from its application, but its use requires to be continued for a considerable time, else the pain will return. In the absence of the recent leaves, an inspissated juice of them may be used."

4. A standard remedy of many physicians is tincture of black cohosh, two tablespoonfuls; tincture of the root of aconite, thirty drops. Put these into six tablespoonfuls of simple sirup. Dose, a teaspoonful, every three hours.

5. Dr. J. H. Haley, of San Francisco, says: "Salicin, the active principle of the willow, is one of the most valuable remedies we have for rheumatism." Dose, ten-grains three times a day. It may be obtained at all drug-stores.

Accessory Measures — In inflammatory rheumatism meat in any form, solid or fluid, is injurious; the patient must be put upon preparations of rice, potatoes, bread, arrow-root, gruel, vegetable or meatless soups and jellies.

All fatty substances and stimulants, especially liquors, whether cider, malt or spirituous, must positively be avoided. The surface of the body should be rubbed once a day with a coarse towel, using sufficient friction to cause an agreeable glow of heat, and the patient should use moderate exercise without fatigue.

CHRONIC RHEUMATISM (Rheumatismus Longus).

This sometimes follows the acute form of rheumatism; at other times it is a separate constitutional affection, coming on quite independently of any previous attack. It is generally very obstinate, prone to recur and is often worse at night. In time the affected limbs lose their power of motion, and lameness results, the knee-joint being often affected; sometimes there is emaciation of the muscles; sometimes permanent contraction of a limb, or bony stiffness of the joint. There is but little fever, no perspiration and less swelling than in acute rheumatism. It may be limited to one part of the body, or extend to several; it may be fixed, or shifting.

Remedies—1. Take four tablespoonfuls of kerosene oil, and two of neat's foot oil. Mix, and anoint freely twice a day. At each application, warm the parts thoroughly by the fire. As an external remedy this is gaining much notoriety, as many cases of diseased and swollen limbs have been cured with it in two or three weeks, where the patient had been unable to walk for months.

2. The following remedy has been sent across the continent several times, to those who were afflicted with rheumatism: Take, of

Oil of cedar	1	ounce.
Hartshorn	1	"
Spirits of camphor	1	"
Spirits of turpentine	1	"
Tincture of capsicum	1	"
Alcohol	1	pint.

Mix. Apply twice a day. If the parts are tender, use a feather or camel's-hair brush. The use of this remedy has been attended with almost uniform success in the treatment of chronic rheumatism.

3. There has recently been published as an effectual cure for rheumatism the following, and we give it space here: "Take garden-celery, cut it into small pieces, and boil in water until soft. Of this liquid, let the patient drink freely, three or four times a day. It is recommended, at the same time, to use it as an article of diet, prepared as follows: Put new milk, with a little flour and nutmeg, into a saucepan with the boiled celery, serve it warm with pieces of toast, and the painful ailment will soon yield. Such is the declaration of a physician who has again and again tried the experiment, and with uniform success." From the many cures performed by the use of celery, a preparation of it designated Celerina is made, and on sale at all first-class drug stores, being prescribed by the best physicians.

4. A French author gives the following, as one of the best remedies used in the hospitals of Paris: "One ounce of powdered gum-guaiac; one ounce, each, of poke-root and black cohosh, and

one quart of old rye-whisky. Mix, and let stand two or three days. Dose, one tablespoonful three times a day." The berries of the poke-root are likewise highly recommended in chronic rheumatism. They are to be steeped in whisky. Dose, one teaspoonful of the liquid three times a day.

Wintergreen a Cure for Rheumatism—*John Burrows, of Buffalo, N. Y., was treated for rheumatism for five months by Dr. Anderson, and three months by Dr. Knight, both of that city, after which he doctored over four months with Dr. Rodgers of Rochester. At the end of this time his disease was worse than at the beginning. He had suffered torture for more than a year and had expended many hundred dollars all in vain, when at last he heard of the simple remedy of wintergreen. Twenty-five cents worth of it cured him in less than two weeks.* See page 706.

Sciatic Rheumatism—It has recently been discovered that spirits of turpentine will cure sciatica in its worst form and of years standing, but following should be used cautiously:

JOHN KNOWLTON, OF SAN ANTONIO, TEXAS, AFTER USING THIS REMEDY FOR TWO DAYS THREW ASIDE HIS CRUTCHES WHICH HE HAD BEEN COMPELLED TO USE FOR TWO YEARS, AND NEVER NEEDED THEM AGAIN. For the first dose he took one teaspoonful, and on the following evening twenty-four hours after taking the first dose, he took a half teaspoonful. He stated: "I suffered intensely from taking the remedy, but the two doses cured me, when no physician, that I could find, could do it." The quantity he took might be reduced one-half.

Accessory Treatment—Great advantage is to be derived from the local treatment of the joints. When they are swollen and painful much ease may be given by wrapping them up in a quantity of soft, carded cotton or wool, over which wrap, if you can get it, a piece of oiled silk, so as to keep it air tight. After keeping this covering on for twelve or twenty-four hours, you will find that it is saturated with moisture that is strongly acid. If this treatment is continued, it will give great relief. Wet compresses, warm baths, especially of salt water, vapor or hot air, are most useful.

Crick in the Neck, or Stiff Neck—This is one form of rheumatism and should be treated the same as that disease.

Sciatica—When rheumatism attacks the sheath of the sciatic nerve, or great nerve of the hip, it is called *Sciatica.*

Lumbago—When it attacks the sheaths of the fleshy mass of the lumbar muscles, on one or both sides of the loins, it is called *Lumbago.*

The treatment for sciatica and lumbago is generally about the same as that for chronic rheumatism.

Remedies—Iodide of potash in ten grain doses, three times a day, will cure bad cases of Sciatica.

1. Lumbago of a virulent form has been permanently cured by giving one drop of the spirit of Venice-turpentine on a lump of loaf-sugar twice a day.

2. Black cohosh is a very speedy and generally an effective

remedy for the cure of Lumbago. Dose, a teaspoonful of the infusion every four hours.

Accessory Treatment—*Liniments* medicated with the same remedy as administered internally, or even simple olive oil, rubbed into the affected parts, are very useful. The friction should be performed in a warm room, and currents of air guarded against. A wet compress, simple or medicated, greatly assists the cure. In this and other varieties of muscular rheumatism, rest and warmth are of great importance. The application of the common flat-iron, as hot as can be borne, with flannel between the skin and iron, is very valuable. In lumbago, nothing is so instantaneously beneficial as strapping the back from the level of the "seat" upwards, in layers that overlap each other, with strips of adhesive plaster, or warm plaster. A pad of flannel or of unbleached cotton wrapped across the loins, next the skin, is very comforting. Where persons are very liable to lumbago, from slight exposure to cold or damp, wearing a skein of silk around the waist is an excellent preventive. Generous, nutritive diet is desirable. Lemon-juice is a grateful and remedial beverage.

For Contracted Joints—1. A very peculiar remedy has been used with good success in this difficulty. It is the angle-worm or fish-worm oil, prepared in the following manner: A quantity of the worms should be placed in a bottle, closely corked, and hung in the sun. The heat will melt the worms and convert them into an oil. It is said to be very penetrating, powerful and effective, in causing the relaxation of contracted muscles. It may be applied once or twice a day.

2. Another simple remedy for lameness, resulting in a contraction of the muscles of any part, is thus described by a late English surgeon:

"Take the yolk of a fresh egg, and let it be beaten with a spoon to its greatest thinness; then add water by spoonfuls, agitating the mixture continually, that the egg and water may be well incorporated. The liquor may be applied cold, or only milk-warm, to the parts contracted, by a gentle friction for a few minutes, three or four times a day. This remedy has been repeatedly tried by different practitioners, and with good success."

RUPTURE.

This is an unnatural protrusion of some portion of the contents of the abdomen, generally dependent upon a laxity of the parts. It is produced in children by crying, coughing, vomiting and other like causes; and in grown persons, by blows, violent exertions of strength, strains, etc. It has been observed that ruptures were most frequent among inhabitants of those countries where oil is much used as an article of diet.

A rupture is a kind of sack or tumor, protruding from the abdomen, in various situations, but most usually in the groin, scrotum, the upper and fore-part of the thigh, the navel, and at various points on the surface of the abdomen.

Ruptures sometimes prove fatal before the cause of the difficulty is known. Therefore, whenever sickness at the stomach, vomiting, obstinate pain and costiveness of the bowels give reason to suspect a rupture, all those places where they usually appear should be carefully examined; as, by neglecting this inquiry, the case may become incurable, or the individual may even die before the cause of the difficulty shall become known.

When, through neglect of precaution, the bowel "comes down," and will not return, the rupture is said to be "strangulated."

Remedies—1. The patient may be put into a warm bath up to his neck, and kept there until he feels very faint; he may then attempt, according to his own usual method, to put the rupture up, by pressing it gently, if it be in the groin, or by lifting it up, if in the purse, and gently squeezing it toward the abdomen, but no violence must be used, or the intestine will burst.

No time should be lost in trying to push the tumor back into the abdomen, gentle force being exerted chiefly upwards and outwards, as the patient lies with the hips raised, and the thigh on the ruptured side flexed. A copious injection of tepid water, the author has known to be successful in cases which assumed a serious aspect, the escape of water from the bowel being rapidly followed by return of the rupture. But if not successful, the patient should then be laid on a board, so placed as to form a steep, inclined plane, so that the patient's feet and hips are very much higher than his head; he should be firmly held in this posture by an assistant, when, by pressure on the swelling, and often without any, the bowels will fall towards the chest, drawing with them the constricted portion.

Some surgeons have of late strongly recommended attempting reduction of a rupture by reversing the position of the body; in other words, by holding the patient head downward or nearly so, and while in this position the intestine can easily be put back. A gurgling sound will be the signal of success.

2. When the above means fail, a poultice of slippery elm is frequently effectual in reducing the inflammation. It should be applied tepid, and frequently changed.

3. Or, the following, which is considered preferable; a poultice, made of lobelia and stramonium-leaves, equal parts of each, or of either one of these, if the other cannot be obtained, may be applied to the inflamed rupture, and frequently changed, so that it shall be constantly warm. After this has been employed for a sufficient length of time, the attempt may again be made to reduce the hernia, proceeding in the manner that has previously been advised.

4. Should all these endeavors prove ineffectual, injections of the smoke of tobacco should be used. This has been often known to succeed where every other method failed.

After returning the hernia, a truss should be employed, the pad of which should be of an oval shape, to exert a sufficient amount of pressure to prevent a subsequent protrusion. A truss should be worn constantly during the day-time, and applied before rising from bed. The skin of the part on which it presses should be washed daily, and for the first few weeks, bathed with cologne-water, or spirit-and-water, to prevent excoriation and the formation of boils.

If the rupture resist the measures just recommended, the best surgeon within reach should be immediately sent for, as an operation may be necessary to save the life of the patient.

5. The constant application of a solution of alum in a strong decoction of oak-bark—two drachms to a pint—has been recommended by some surgeons for the radical cure of rupture in the groin. It is applied by means of soft linen, which should be wetted as soon as it becomes dry. The compress should, for some time, be kept on the part, by a bandage, or truss with easy springs.

Accessory Measures—Persons who have a rupture ought carefully to avoid all violent exercise, carrying great weights, leaping, running and the like. They should likewise avoid windy aliment and strong liquors, and should carefully guard against catching cold.

Those who can afford it, should have two trusses of the same size and strength, so that if one gets out of order the other may take its place while it is being repaired; for an hour's absence of the truss might occasion a mischief which it would require months to repair.

Persons having rupture must be very careful to keep themselves free from costiveness; for straining at stool is highly injurious.

Ruptured Navel of Infants—Should there be any signs of a protrusion, at birth or soon after, a circular piece of cork should be applied, somewhat convex on both sides, covered with soft leather, and secured by a moderately tight-fitting bandage around the abdomen. A flat piece of sheet-lead or ivory, protected with soft leather, with the convex surface over the aperture, may be substituted for the cork. If the pad slips off the part, it should be secured by cross-pieces of adhesive plaster. If the pad is nicely applied, and continued for one or two months, a radical cure may be expected.

RICKETS—SPINAL CURVATURE.

Causes—These are to be found in the bad hygienic conditions productive of so many of the diseases of childhood; especially

close, old, damp rooms, overcrowding, want of cleanliness and insufficient supply of good food. The ill health of the mother during gestation, particularly if she suffered from leucorrhea, is a frequent cause. Prolonged nursing, when the milk becomes thin and watery, is another prominent cause of the malady.

In the following passage, Dr. Jenner shows how improper food and physic produce rickets:

"For the first two or three days after birth, their tender stomachs are deranged by brown sugar and butter, castor-oil, gruel and starch-water; as soon as the mother's milk flows, they are, when awake, kept constantly at the breast. And well for them if they are not again and again castor-oiled, and even treated with mercurials.

"After the first month, bread and water, sweetened with brown sugar, are given several times a day, and during the night the child is, when not too soundly asleep, constantly at the breast. As soon as the little ill-used creature can sit erect on its mother's arm, it has at parents' meal-times 'a little of what they have'—meat, potatoes, herring, fried liver, bacon, pork, and even cheese daily, cakes, raw fruits, and trash of the most unwholesome quality, as special treats, or provocatives to eat, when its stomach rejects its ordinary diet. Then instead of being weaned when from ten to twelve months old, the child is kept at the breast when the milk is worse than useless, to the injury of the mother's health, and to the damage of its after brothers and sisters, in the hopes that thus keeping it at the breast may retard the next pregnancy. The children are sacrificed that the passions of the parents may not be restrained."

Symptoms—When a child reaches the tenth month without any appearance of a tooth, or if at eighteen months old he is unable to walk, rickets may be strongly suspected. The most noticeable symptom of this disease is profuse perspiration of the head, neck, and upper portion of the trunk immediately the child falls asleep, the perspiration standing upon the forehead in beads, or making the pillow wet. The patient desires to lie cool, and kicks off the bed-clothes, both in summer and winter. The child is late in walking, the bones of the legs are curved, and the joint-ends enlarged, especially of the wrists and ankles. The head becomes flat and more square than natural, and the little patient desires to lie still and be undisturbed by playthings or company. The appetite is often voracious, and the food passes rapidly, and almost unchanged, through the intestinal track; there is much straining, and the stools are of variable consistency and extremely offensive. The flesh wastes away, and there is much muscular weakness; the child is drowsy in the day time, but restless and uneasy in the night.

In severe cases, not merely the leg-bones, but also the spine becomes curved, and the pelvis loses its proper shape; the face is small and triangular, the chin being small, out of all proportion

with the forehead, the teeth project and fall out, or soon decay, and the first and second teeth are generally delayed. The chest also becomes narrow and prominent, and the abdomen large and distended.

Remedies—1. The herb called buck-horn brake (*Osmunda Regalis*) is said to be almost a certain cure for the rickets, especially when employed in the beginning of the complaint. One root, infused in one and a half pints of hot water, for half an hour, will convert the whole into almost a thick jelly. The dose of this, is a wineglassful, to be repeated three times a day. It may be sweetened, and flavored with a little cinnamon or nutmeg. The root of this herb should be gathered in the latter part of the summer, though it can generally be found at the drug stores.

2. Among the professional remedies employed in the treatment of this disease, perhaps there is none more effective and popular than the following: Take half a teaspoonful of sirup of the hypophosphites three times a day, for three weeks, then substitute for it the hypophosphite of lime, in two-grain doses, in sweetened water, for two weeks, then omit this and return to the sirup, and so continue alternating. Both these articles can be procured at any drug-store.

For ultimate success, in the cure of rickets, too much imporance cannot be attached to the measures given under the head of "Accessory Treatment," for success will depend, to a great extent, upon a compliance with them.

Accessory Treatment—Country air, dry and bracing; abundance of sunlight, and out-of-door exercise. These wonderfully promote the cure, by imparting tone to the digestive organs, energy to the nervous system, and, in short, invigorating the whole constitution. Patients not able to walk should sit or recline in the open air, warmly clad, during portions of the day; this will aid recovery far more than passing the chief part of the day in the confined air of a sick-room. Well-ventilated rooms and strict cleanliness are also necessary. Further, tepid or cold bathing, every morning, especially in salt-water, followed by friction down the back for five or ten minutes. In the evening, the friction should be repeated.

Diet—Nourishing food, which should be well masticated, is of great importance. It should include milk, meat, animal broths, brown bread, etc. Malt or barley-food is especially suitable for rickety children. If finely ground, the sediment from the husk need not be removed from the prepared food, as it is very nutritious, and rich in bone-forming materials. Boil four tablespoonfuls of ground malt in a pint of water for ten minutes. Pour off the liquid, and add an equal quantity of new milk. This food is very agreeable to children and highly nutritious.

If mechanical support be necessary for curvatures of the lower limbs, simple, straight, wooden splints, kept in place by a

good bandage, are the best. But weakly children should be first treated by the administration of cod-liver oil, and other remedies we have prescribed, and splints applied when the child's condition is improved, should they still appear necessary. As just stated, cod-liver oil is an important remedy, but it should only be given in small doses, ten to twenty drops at first, and the quantity gradually increased to a teaspoonful. Small pieces of ice put into each dose render the oil almost tasteless. During its administration the evacuations should be examined, for the appearance and odor of the oil in them are signs that the quantity should be reduced. In the employment of cod-liver oil, none but a pure article should be used.

RINGWORM.

When the disease exists on the head, the hair is dry, shriveled and brittle. But it is most easily detected by the presence of short, broken-off hairs, which appear as if they had been nibbled close to the scalp. In fact, these patches of stubble are the readiest sign by which to determine when the disease is cured. If the hair is growing naturally and free from scurf, where the disease existed, it may be presumed that there is no further danger of contagion; but so long as there are the short, broken-off hairs, there is room for doubt about the cure. Where the disease exists on the body, it has the appearance of red, scurfy, circular patches.

Remedies—1. Castor-oil seldom fails to effectually cure ringworm, when the parts are anointed with it twice a day.

2. Take a small quantity of tobacco, and, after boiling it well, add to the liquor a small quantity of vinegar and strong lye, and wash the eruption with this two or three times a day. It will never fail to cure.

3. Other remedies that are efficacious are often employed; such as washing the head every morning with soap and water; make a solution of soda and vinegar, by adding a teaspoonful of the former to a teacupful of the latter, and apply every night. Or, use thoroughly applications of borax and water.

Accessories—Strict cleanliness of person; friction; an occasional tepid bath; if the skin become irritable it may be occasionally washed in bran-water—a handful of bran in a quart of water.

To prevent contagion, the affected person should be kept apart from all others; the towels, brushes, etc., should on no account be used by any one else.

SHINGLES (Herpes Zoster).

Symptoms.—Sickness and headache sometimes precede an attack; but, in most cases, the earliest symptoms are heat, itching and tingling on some parts of the body, and the person is found to

be covered with small red patches of irregular shape, near together, upon each of which are seen numerous pimples. These enlarge in the course of twenty-four hours to the size of small pearls, are perfectly transparent, and filled with a clear liquid.

The clusters of pimples are of various sizes, from one to three inches in diameter, and surrounded by a narrow red ring. Other clusters come in three or four days, if the disease is not checked, and extend around the body or over the shoulder.

As the patches subside, the blisters partially run together, and change to a blackish color, terminating in thin, dark scabs. These fall off in about twelve or fourteen days, the skin where they were appears red and tender, and the largest of the scabs leave pits behind.

Remedies.—1. But little treatment is necessary in most cases. The patient should be bathed daily, and the foot-bath should be used when there are feverish symptoms. If the bowels are costive, give an injection of warm water or a gentle cathartic. Should there be much irritation at the point of eruption or pimples, dust it with scorched flour or wet it with sweet cream. In ordinary cases no other remedy will be required.

2. In severe or aggravated cases, the following treatment will be necessary, in order to effect a cure. Give freely, a tea of burdock and sassafras, or either when the other cannot be had. And for the external treatment, the crusts or scabs should first be removed by soaking with vaseline or cosmoline, and then washing with soap and warm water, or poulticing if this does not answer. When they are all off, cover the part with a cloth wet with tar-water made by stewing a teacupful of tar in a quart of boiling water.

3. The yerba reuma has recently been discovered to be an infallible remedy in this disease, the most obstinate cases readily yielding to its treatment. The fluid extract, or a strong decoction of the herb, is to be applied to the parts twice a day.

SLEEPLESSNESS.

Apart from disease sleeplessness may arise from an overloaded stomach, over-excitement or cold feet.

Treatment.—How to sleep is to many persons a matter of high importance. Nervous persons, who are troubled with wakefulness, usually have a strong tendency of blood to the brain, with cold extremities. Let such rise and chafe the body and extremities with a brush or towel, or rub smartly with the hands to promote circulation and withdraw the excessive amount of blood from the brain, and they will sleep in a few moments. A shower-bath or a sponge-bath and rubbing, or a rapid walk in the open air, or, it is said, going up and down stairs a few times just before retiring, will aid in equalizing circulation and promoting sleep.

Where there is no disease, either of body or mind, to which the want of sleep can be imputed, the person should keep himself in as cheerful a mood as possible, and should, if his strength permits, rise early and exercise so as to fatigue himself moderately. Studious men ought to avoid late readings, and on going to bed endeavor to abstract the mind from all business. In some cases of restlessness, sleep may be procured by the person getting up and walking about the room for a few minutes. By such means sleep is sometimes induced when previously it has been solicited in vain.

In protracted cases of wakefulness, the patient should be made to fully understand the danger he is in, and to lend his entire concurrence to the efforts for his relief. Mental labor should be given up; overwork of any kind must be abandoned; forget all cares, and borrow no annoyances; and all articles liable to keep up the trouble must be forbidden, such as tobacco, coffee and tea.

Remedies.—An admirable remedy for this difficulty is to use a pillow stuffed with hops, or one containing a portion of them. Sleep with the head toward the north. Instances are common where the patient suffers from an empty stomach and a quantity of easily digested food will satisfy the craving and promote a sound, refreshing slumber. Even in the absence of an empty stomach, eating a few mouthfuls of food or a cracker will produce sleep. Again, cold to the head or hot foot baths, with or without mustard, or a warm bath, will relieve the patient promptly. The patient should examine his surroundings, as to whether any cause exists, such as improper position in bed; the best is always where the head and shoulders are above the level. For the relief of this symptom except where it is the result of pain, medicines should be employed with caution and not continued any length of time.

An easy mind, a good digestion and sufficient exercise are the grand conducives to sound sleep. Never sleep with the head covered. Children should sleep alone as much as possible, if we would have them possess vigorous lungs, sound bodies and sound minds. Fat persons should sleep little and exercise much. Too much sleep in a warm bed weakens the nerves, disorders the brain, produces peevishness, leads to apoplexy, palsy, excites palpitations, and relaxes the system by over perspiration. Hearty suppers, strong tea and coffee also disturb the sleep.

"*The Harbinger of Health*" gives the following: Chronic wakefulness may be greatly controlled by eating plentifully of onion soup two or three times per week. All sedatives, anodynes and somnolent medicines should be taken only with extreme caution and discontinued as soon as possible. The loving and harmonious are invariably the sweetest sleepers; but the stoutest slumberers are they who work much and think little.

Dr. Ruddock's Absolute Cure for Sleeplessness. He says it always cures, that he has never yet known it to fail.

"Sit in an easy position, relaxing all the muscles of the body.

and let the head drop forward upon the breast as low as it will fall without forcing it. Sit quietly this way for a few minutes and forget to think, if possible, thus freeing all the will-power of the body, when a restful, drowsy feeling will ensue, which will if not disturbed lead to a refreshing sleep. The writer suffered several years from sleeplessness caused by severe pain and nervousness, and was taught the above by a physician of great experience and ability, and found through it complete relief. Many persons similarly afflicted within the writer's knowledge have tried it, and always with good results.

Bad Dreams—Do not gratify your appetite with too many kinds of food, especially near bed time. When a child, you were injured by affectionate expressions from friends and family in the shape of candy, raisins, nuts and rich cake. These are germ-generating "evil spirits" that now beset you in your dreams. Sleep with your head toward the North Pole hereafter, and always go to sleep on your right side, and as a rule eat or drink nothing after seven o'clock p. m.

STAMMERING OR STUTTERING.

Many theories have been proposed regarding the nature of this impediment, and the fair inference seems to be that it may arise from a variety of causes. In many cases it is undoubtedly the result of imitation; in others, again, there appears to be some defect from birth, often so obscure as to defy scrutiny. Whatever excites the emotions, as anger, or other sudden passion, increases the difficulty.

A very important remedial means, upon which too much stress cannot be laid, is to study carefully the mechanism of the articulation of the different letters, and to practice their pronunciation repeatedly, when alone, and cultivate the habit of talking or reading aloud to yourself, slowly and analytically. The patient should commence by practicing such sentences as contain but a few difficult sounds, and from these pass on progressively to such as are more and more difficult. It may be well in these exercises for the patient to have a judicious friend or guide, who should aim to so direct him that he will continually increase in confidence in his own power of articulation; and this is best done by gradually leading him from that which he finds and knows he can do to that which he fears he cannot. Mr. Jourdant, a French writer, gives the following directions: "The chief difficulty experienced by the stammerer consists in detaining the air in the chest, and in allowing it to escape only very slowly and gradually. To effect this object the following rules are to be carefully observed: First of all, to make a healthy inspiration, as in the healthy case; then to make a very slight pause; then to begin to talk, taking especial care to keep the chest and lungs

continually somewhat dilated and the abdomen slightly protruded, giving out all the while as little air from the chest as possible; and, lastly, before re-commencing the same series of movements, to expel the air that remains behind by a powerful expiration. It requires some practice by the patient, and careful observance to their order, but if these simple rules are strictly attended to, it will be found that no stammering can take place, even if the person tries to do so."

The following are other excellent means of relieving imperfections of speech: When there is no malformation of the organs of speech, let the person read aloud for one or two hours; and let him persevere in this course for at least three or four months, unless he has overcome the defect in less time, or:

Take a little piece of hard wood, just large enough to hold the teeth from a quarter to half an inch apart. Hold it firmly between the teeth, and read or speak slowly, for a few minutes at a time. Do this several times a day, and continue the practice for some length of time. Sometimes speak in a loud full voice, and again almost or quite in a whisper.

Another is simply to practice reading aloud a short time, each day, and at the same time, after the pronunciation of each word, to tap the book with the finger.

The individual should not confine himself to any one of these methods, but practice the different ones, at different times, and by their use he will be able to overcome this embarrassing difficulty.

SMALL POX (Variola).

This disease is too well known to need a particular description. It is always caused or communicated by contagion; that is, caught from others who have it.

About twelve days usually intervene, between the exposure and the commencement of the disease. Sometimes the attack may be two or three days earlier or later. There are two forms of small pox: The confluent, where the pocks are so thick as to run together, and the distinct, where they are separate, then we have varioloid, or, small pox modified by vaccination or constitutional predisposition. Exposure to varioloid may give rise to either varioloid or small pox, and exposure to small pox may cause either confluent or distinct small pox, or varioloid; all depending on the susceptibility of the individual exposed.

Symptoms—As in most other fevers, the following symptoms appear in the first stage: Chilliness, heat, headache, sometimes delirium; a thickly furred, white tongue; a deep flush upon the face; a hard, frequent pulse; a feeling of bruised pain all over the body, but especially in the back and loins; more or less pain or

tenderness at the pit of the stomach, and vomiting. The pain in the back and loins and the vomiting are the most characteristic of the premonitory symptoms, and are seldom absent. When these are excessive and continuous, they are the forerunners of a severe form of the disease. On the third or fourth day the eruptions, often so minute as to escape observation, appear in the form of red spots, or small hard pimples, which feel like shot in the skin. It appears first on the face, neck and wrists, then on the body, and finally on the lower extremities. If examined early, the eruption may be seen upon the palate, and is often formed on the lining membrane of the wind-pipe, giving rise to sore throat, salivation, cough, painful expectoration and hoarseness. The pimples gradually increase in size until about the eighth day from the commencement of the fever; the contents, at first watery and transparent, change to yellowish matter as the pimples become ripened into pustules. The pustules are then depressed in the center, and surrounded for a short distance by a rose-red appearance. During the time the pustules are filling up there is swelling of the eyelids and face, sometimes to such a degree as to obliterate the features. A peculiar, disagreeable odor now begins to emanate from the patient, which is so characteristic that the disease at this stage might be known by this alone. On the first appearance of the eruption the fever subsides; but in the confluent form, when it is at its height, a fresh attack sets in, which, to distinguish it from the precursory fever, is called the secondary fever.

Before the eruption, as we have no positive means of determining that it is small pox, only inferentially if it is prevailing as an epidemic, we should treat it the same as any other fever. The patient should not be kept too warm, neither should heating remedies be employed to cause determination to the skin. If there is much restlessness, sleeplessness and delirium, which always occurs, during which period a nurse should be constantly in immediate attendance to guard the patient against imprudence and harm, the head may be sponged and feet bathed in hot water.

If such course is pursued, few severe confluent cases will be met with. All heating and irritant applications to the skin, and internal remedies calculated to produce determination to the surface, will increase the eruption and aggravate the disease.

If there is sickness at the stomach, there is nothing better to allay it, perhaps, than frequent sips of warm spearmint or peppermint tea, with a little saleratus dissolved in it.

When the eruption makes its appearance, continue the same treatment. The sponge-bath, twice daily, should be used, and continued until maturation is complete; castile soap and warm water are the best that can be used. Those who have never adopted this plan would be surprised to see the influence that is exerted upon the system by keeping the skin thoroughly cleansed. To prevent the eyes from becoming injured by the disease, they should be frequently washed with rose-water, or mucilage of slippery-elm, more

especially when the fluid from the pustules flows into them. And the nostrils may be kept free by passing a well-oiled camel's hair pencil into them several times a day not forgetting to keep the room somewhat darkened.

Remedies—The following is published by the Academy of Medicine, of Paris, and is pronounced a never-failing cure for this disease. Hundreds of cases have already been successfully treated with it, and no failures yet reported. It is so prompt that within twelve hours after its use has been commenced the disease will have abated, and the patient be convalescent:

Take, of

Sulphate of zinc.....1 grain.
Fox-glove (*Digitalis*).....1 "
Sugar.....½ teaspoonful.

Mix with two tablespoonfuls of water, after which add four ounces (eight tablespoonfuls) of water, and take a tablespoonful every hour. For a child, smaller doses, according to age. See "Table of Doses for Children."

2. A remedy that is reputed to have been used with great success during a London epidemic, and also has the merit of simplicity, is as follows: Dissolve one ounce of cream of tartar in a pint of boiling water. Of this, when cold give half a gill, for the first dose, to an adult. After this is taken, divide the remaining quantity into such doses as, taken three times a day, the whole will last three days. It has restored hundreds of cases, leaving no pit-marks and no blindness, as is sometimes the case when otherwise treated. It can be taken at any time, being preventive as well as curative.

3. A remedy, now in use in some parts of Europe, and also in China, and said to be the most successful one employed in those countries and perfectly effectual, is to apply to the chest an ointment made by combining tartar-emetic and croton-oil with lard. This application should be made when the fever is at its height and just before the eruption appears. This causes the whole of the eruption to appear on this part of the body, and thus relieves the internal organs and the face, on which there will be no pitting.

4. A few years since, the herb called the Indian cup or pitcher-plant (*Sarracenia Purpura*), was much praised for its supposed remarkable powers in small pox. But its subsequent use is said not to have met with the great success that had been claimed by its sanguine advocates.

The root of the plant is the part employed. The dose, when reduced to powder, is about a dessertspoonful, simmered in a pint of water down to half a pint; this is usually divided into two doses, to be taken during the day. Sugar should not be used with it.

Accessory Treatment—The patient should be kept cool and the sheets and linen frequently changed, ample provision being made both for the uninterrupted admission of fresh air and the free escape of tainted air. The bad ventilation of a small room, too high

a temperature and hot cordials interrupt the tendency to recovery. In cold weather a fire should be kept burning in the apartment and the patient have an extra blanket, but the windows kept open. If the weather is mild, the patient is better treated entirely in the open air. If, at any time, the eruption should recede or "strike in," put the patient in a warm, bath.

Dr. A. Collie, Resident Medical Officer of the Homerton Hospital writes: "Nothing is of so much importance as pure air, and that in unlimited quantities. In this hospital we have kept our windows open constantly, by night and by day, throughout the months of February, March, April, etc.; and this has been attended with the very best results; for our mortality is the lowest of all the small-pox hospitals in London, and we were receiving our patients from the same sources, and some time before this epidemic reached its height."

During the entire course of the disease, especially when the skin becomes hot, painful or irritable, the whole surface may be sponged with warm water, to which a spoonful of perfumed carbolic acid has been added, and well dried with a soft towel. This generally affords great relief. The use of perfumed carbolic acid, in the above manner, and the infusion of its vapor in the air of the apartment tend to mitigate small-pox and to deprive it of its contagious character. Frequently changing the posture of the patient in bed, so as to avoid constant pressure on the back, prevents bed-sores. After the pustules burst, powdered starch or flour should be freely applied, to absorb the matter. Cleanliness, frequent tepid washings, and an occasional warm bath, are especially necessary during the last stage of the disease.

To prevent pitting, the pustules should be frequently anointed with olive-oil, cold cream, or a mixture of one-third of glycerine with two-thirds of water. A still better mixture is one of cream and flour, in such proportions as will make a thick paste. This should be freely smeared over the face and neck, and renewed when necessary. By this means the action of light on the pustules or blisters which, so to speak, photographs them on the skin, may be prevented as well as the consequent pitting; at the same time we allay the irritation which accompanies the state of maturation. The hands of children should be muffled and lightly secured, to prevent scratching, which might lead to ulceration. Adults may wear loose gloves. This precaution is especially necessary while the patient is asleep, and acts unconsciously.

Diet—Tea and dry toast, raw eggs beaten up with cold milk, beef-tea, etc.; grapes, roasted apples and wholesome ripe fruits in season. For drink, cold water is generally preferred, and any objection to it by nurses or friends should be firmly resisted; in addition, milk diluted with about one-third or one-half soda water, lemonade, raspberry-vinegar water, currant jelly water, and barley-water.

Disinfection—The only absolutely safe method to adopt with

infected clothing and bedding is to burn them. If this be objected to, they should be either baked or boiled at a temperature of 212°. Rooms should be disinfected by fumigating with burning sulphur, with all apertures closed, and remaining closed one day and night; it is even safe to repeat once. The walls should then be divested of their paper or color or white-wash; the floor thoroughly scrubbed and washed over with a solution of lime or zinc; walls and ceilings well limewashed; and afterwards, the doors and windows kept open for several days.

Varioloid—This is a form of small pox, modified by the vaccination. It is to be treated the same as a case of genuine small-pox, only that the treatment should be graduated according to the mildness or severity of the symptoms. Sometimes the disease is very mild, requiring scarcely any treatment; at other times it approaches very nearly to a genuine case of small-pox, and requires a full course of treatment. If the bowels are constipated the best relief is obtained by dissolving a teaspoonful of cream of tartar in a glass of water, and giving it occasionally.

SIMPLE SORE THROAT (Dolor Faucium).

This is a soreness of the throat alone, uncomplicated by ulceration, quinsy or syphilis.

Cause—Catarrh; the sore throat being a simple extension of the catarrhal affection. This disease should not be neglected, as it is apt, in some persons, to degenerate into a troublesome form.

Remedies—1. To a small handful of the leaves of the common sage, pour a pint of boiling water; let the infusion stand half an hour. Add vinegar enough to make it moderately acid, and honey to the taste. Use it as a gargle several times a day. This seldom fails to cure the disease.

2. In some forms of sore throat, a gargle of strong soda-water is a certain cure. It is to be used freely. In others, there is no better remedy than lemon-juice. At the time of gargling the throat, swallow a small portion.

3. Powdered borax or sage, mixed with honey, is an excellent remedy for inside sores of the mouths of children. If a little of the mixture be dissolved in warm water, it will form when cold an efficacious gargle for an ulcerated sore throat.

4. As an external remedy for curing sore throat, camphor-gum, combined with kerosene-oil, is a famous one. The gum is to be dissolved in the oil, and then applied several times during the day.

5. The inhalation of steam, by placing the head over a vessel of boiling water, gives great relief. When the swelling is great, apply a poultice of hops or flax-seed.

6. In case of an ordinary sore throat, when no other remedy is at hand, use a gargle of salt and water, with a little vinegar, and it will be found to produce a very salutary effect. When the palate is relaxed and the throat ulcerated, gargle with strong alum-water.

7. In children that cannot be made to gargle, a good plan is to blow finely pulverized alum or borax into the throat, through a quill or a folded paper or a tube of any kind.

8. Loss of voice may require the application of electricity, or blistering of the back of the neck. Singers and others find great relief by allowing a piece of borax to dissolve slowly in the mouth, swallowing the solution as it forms.

9. Common table tea, gargled frequently and as hot as possible, is a very successful remedy in mild cases.

10. A gargle of cayenne pepper tea can be relied upon to cure any case of recent sore throat.

Accessory Treatment—Frequent draughts of cold water, and the application of the throat compress. Steaming the throat as directed in the 5th remedy above is soothing, and often curative, but it should be done at bed-time, when the patient has not again to be exposed to external air.

SPINAL DISEASE.

Causes—The most powerful and frequent predisposing cause is hereditary tendency, especially when hysteria, epilepsy or insanity exists in the family. What is termed a nervous constitution underlies nearly every case of spinal disease. Impoverished blood, sexual derangements, sterility and absence or non-exercise of the maternal instincts are also predisposing causes. Neglect of physical exercises, sexual excesses, self-abuse, are powerful and prominent factors of this affection. In short, everything that tends to exhaust vital power, and consequently produces a nervous condition, must be accounted a cause. The exciting causes are, shock or grief; injury to the spine, as by railway accidents, blows, falls, etc. To the latter, men are, of course, equally liable; but the nervous system of women is more impressible, so that the immediate shock is more severely felt, and its consequences are more likely to be deep and lasting. For a like reason, various kinds of rough exercise that keep the spinal muscles on the stretch—jumping, traveling over rough roads, horseback exercise, bicycle riding, etc., may act as powerful exciting causes.

Symptoms—The initiatory are, generally, headache, limited to one spot or to one side, or to the brow or cheek, with sleeplessness, distressing dreams or nightmare, nausea or vomiting, cold hands and feet, and alternate chills and flushes. All the symptoms are intensified by exertion, bodily or mental, and the patient evinces

an almost constant desire to lie down. The symptoms differ according to the part affected, the most characteristic one being local tenderness.

Spinal Irritation and Other Diseases—Spinal irritation may simulate or co-exist with hysteria; but to the skilled observer there are distinguishing features. In hysteria the soles of the feet and the skin generally are commonly insensible to tickling; in spinal disease, on the contrary, irritability is intensified. Patients do not complain of such extreme depression of strength as in hysteria, but are chiefly weak when in pain. This affection may be distinguished from actual disease of the spine by observing that the tenderness, though excessive, is superficial, and the patient complains more when the skin is touched than when the vertebræ are pressed. There is also the absence of impaired nutrition, wasting, and other signs of constitutional disturbance.

Further, in diseases of the spinal cord, as a rule, the spine is not tender to pressure; whereas, in spinal irritation such tenderness is perhaps the most marked symptom. The personal and family history, and the cause of the derangement, will aid in distinguishing the disease.

Preparatory Treatment.—The patient should give up sewing, writing, or any other occupation which has caused this trouble; also avoid sitting, except in a strictly erect position so that the weight of the head may be sustained by the bones of the spine, and not by the ligaments and muscles. Traveling, walking in the open air, as far as the strength will admit, or some active, useful employment which shall invigorate the general system, is indispensable. The patient had better spend most of the time in reclining or lying down, so as to relax the spine when he is not taking active exercise.

If already confined to the bed, he must be exercised in the horizontal position until able to take active exercise. An attendant should repeatedly bend and extend the fingers, then the wrists, arms and shoulders in every possible direction. The feet and legs should be exercised in a similar way, allowing the patient to rest at intervals, if he become fatigued. Then place one hand on each side of the body, a few inches below the arms, and shake it gently from side to side. Next, turn the head in every possible direction so as to exercise the muscles of the neck; and finally strike gently with the open hand over the chest, abdomen and back, but very lightly, if at all over the tender part. Go over the entire body in this way at least once in twenty-four hours, continuing the exercise a little longer every day, and as soon as the patient feels able, let him resist slightly at first the various motions given him by the assistant. He will soon be able to ride out, and at last to walk out and take exercise for himself. Remove all blinds and curtains from the windows during the day, and have the room if possible on the south side of the house, so that the sun can shine into it freely. The more sun-

light and fresh air, the earlier will be the recovery. He should have nourishing diet, but no tea, coffee or stimulants.

Remedies—1. A measure which is of incalculable importance in spinal deformity, is to carry a weight on the head for half an hour at a time and several times a day. The weight compels the person instinctively to assume a position as nearly perpendicular as possible.

2. The *electro-magnetic battery* is often highly successful, when applied in connection with the other measures here given.

3. When the disease is the result of an injury, add five drops of the tincture of arnica to a tumbler full of water, well mixed, and of this give two teaspoonfuls morning and evening. At the same time put twenty drops of the tincture into half a pint of water, and use it as an external application three times a day, over the tender parts of the spine.

4. The whole surface may be bathed daily with salt and water; especially should the entire length of the spine be thoroughly and repeatedly rubbed, and indeed, in all other cases where the bones are affected.

5. A wet compress over the tender spot will also afford relief. Sometimes a belladonna-plaster gives much comfort.

For unmarried females, after the severe symptoms have been modified by treatment, it is of supreme importance that some agreeable and light occupation, undertaken in a business-like way, should be provided.

SALT-RHEUM, OR TETTER.

This is a troublesome inveterate eruption, appearing on different parts of the body, usually the hands. Very small eruptions or vesicles appear, which break and discharge a thin, corrosive fluid, that causes a very great degree of irritation, or itching; afterward scabs often form upon the part affected, which, though they be rubbed off or dry away, will reappear after a while.

It is attended with more or less inflammation and swelling, and such is the degree of itching sometimes attending it that the patient is obliged to scratch continually to obtain the least relief. The whole hands or parts occasionally become excoriated, stiff and almost immovable. It seems to be located principally underneath the skin; although from its disappearing in one part and then appearing in another, it is evident that the disease is located in the blood.

Remedies—1. This is a disease of which many suffer for years, notwithstanding there are simple remedies that will effectually and speedily cure it. One of these is petroleum. This is the crude substance from which kerosene-oil is manufactured. Apply

it three times a day, and at the same time take a decoction, of equal parts of burdock and sarsaparilla. Dose, a wineglassful twice a day.

2. Green walnuts is another remedy which is said to be an almost certain cure, when perseveringly used. They are prepared for use by slicing them and then adding sufficient of equal parts of alcohol and water to cover them. After standing for a week or ten days, apply to the affected parts twice a day.

3. Take twenty drops of the fluid extract of Oregon grape-root (*Berberis aquifolium*), three times a day. At the same time apply externally the following preparation: Two teaspoonfuls of finely powdered gunpowder, and four tablespoonfuls of vinegar. Mix. Apply twice daily. This extract can now be obtained in almost any drug-store. This is a new remedy, and has not, as yet, been known to fail in the cure of this disease.

3. Chop down a white-oak tree, hollowing out a basin in the stump and filling it with soft water. Washing in this every day will cure obstinate cases.

5. Equal parts of castor-oil and lime-water mixed, are among the best external applications.

6. Cosmoline will also be found to be a good remedy.

7. An old but excellent remedy is to anoint the diseased surface with worn grease taken from the shaft of an iron lathe.

Accessory Treatment—Warm baths; preparations of glycerine, if the skin be much cracked, or occasional poultices if it be very hard. The application of equal parts of carbolic acid and oil often proves most useful. It should be preceded by a warm bath. Nourishing diet, frequently including small quantities of unboiled vegetables; for growing persons, cod-liver oil, absolutely pure. Patients who have been overtaxed in mind or body should have rest and change. The daily habit of bathing or sponging should be adopted, and will, to a large extent, prevent relapses. Warm or tepid soft-water baths, with the use of pure soap, at bed-time, softens the scales, and promotes the healthy functions of the skin. Free out-of-door exercise is also most useful. Frequent washing in tar-water is a valuable addition to any of the foregoing rules.

STY ON THE EYELID.

This is a small boil, situated on the eyelid.

Remedies—1. On the first appearance of it, put two teaspoonfuls of black tea in a small sack, moisten with hot water, bind it on the eye while warm, and retain it there over night. If applied in time, one application is sufficient to remove the sty. Sometimes the second or third application may be necessary. If the tea is moistened with warm water two or three times during the night, it will have better effect.

2. A very good method, and often very effective in the beginning of a sty, is to moisten it in the morning, on awaking, with a little spittle, and repeat it several times during the day. If the above is found insufficient, use the tincture of belladonna; ten drops in two tablespoonfuls of soft-water. Mix well, and apply to the sty, with lint or a piece of soft linen cloth.

3. The following is also highly recommended for this affection: Put about two teaspoonfuls of common baking soda into a small sack; moisten it slightly, and apply it during the night.

4. If styes should follow one another in succession, make a strong tea of burdock-seeds or ground century-plant and take a tablespoonful three or four times a day.

Accessory Treatment—Fomentations with hot water, and if there is much inflammation, a bread-and-water poultice, applied over it at night. If the sty is tedious in breaking, it may be opened with a lancet or punctured with a needle, and the matter gently pressed out. If dependent on general debility, a strict observance of the laws of health is necessary to restore the constitutional vigor.

SALIVATION AND MERCURIAL DISEASE.

The symptoms of this disease are too well known to need description. I may remark, however, that among many others, there are soreness of the gums and mouth, looseness of the teeth, swelling and sometimes protrusion and inflammation of the tongue, constant and profuse discharge of saliva or spittle, wasting, etc. If those who give this poison and create this disease are not woful quacks, then we do not understand the meaning of the term "quackery."

Remedies—1. Two parts of sulphur to one part of cream of tartar, mixed in a little molasses, so as to form it into a paste. Half a teaspoonful of this should be taken two or three times a day, or sufficient to operate slightly on the bowels. Sulphur should be used freely in the mouth, so that it may come in contact with the parts affected. In addition to this, if there is ulceration of the gums or mouth, sprinkle occasionally a little powdered red chalk on and into the sores.

2. Take, of

Alum	1 teaspoonful.
Brandy	4 tablespoonfuls.
Water	1 teacupful.

Mix, and wash the mouth with this every three or four hours. This is a valuable cooling and healing gargle.

3. A strong decoction of golden seal is a remedy that is highly recommended.

4. Sage-tea sweetened with honey is also very useful, and should be employed for the same purpose, when the others are not at hand.

5. The greatest suffering is experienced in taking cold after its use; when this happens, let perspiration be promoted. When mercurial rheumatism is produced, and the joints are stiff, an infusion of burdock seed is very good. A little sulphur may be mixed with Venice-turpentine, spread upon linen, and laid upon the parts affected; after which, let a strengthening plaster be applied; but it is exceedingly difficult to remove the consequences attending such lamentable mal-practice.

6. The following course of treatment is recommended by Dr. H. Howard: "When we have reason to suspect that an individual is suffering from the evil effects of mercury retained in the system, we should resort to steaming in the most thorough manner. Nothing but the highest heat which can be borne will be sufficient to drive this dangerous substance from the body. In general, the same taste will be experienced in the mouth while undergoing a process for expelling mercury, that occurred when the system was first under its influence; and in some instances salivation has ensued, and even purging. The face often becomes swelled whilst in the vapor-bath, to relieve which, the patient should cover his head so as to admit the hot steam to his face, and keep it exposed to the vapor as long as he can bear it; which process must be repeated until the swelling is gone. Or, after the steaming, when the patient is in bed, take a hot stone or brick, not hot enough to burn, then wrap it up in a cloth wet with vinegar and water, with a dry one outside, and place it near the face, covering the head and inhaling the steam as hot as it can be borne. The steaming should be often repeated, the patient at the same time taking freely of cayenne, and a bitter tonic, made very warm, with it. Take frequently during the day. If costiveness prevail, the bitter-root or yellow sarsaparilla-root must be added to the bitter tonic. Sarsaparilla may also be used as a common drink."

A good means of taking a vapor-bath may be found under the head of "Spirit-Vapor Bath."

7. An infusion of the bark of sumach-root is said, by Dr. Fahnestock, to be almost a specific for mercurial salivation.

8. The following are each good washes for this affection: A strong infusion of golden seal, common green tea, or wash the mouth with sulphur-water.

Accessory Treatment—The patient, under any of these treatments, should live on a good, nourishing diet, and take gentle exercise in the open air when the weather is dry; but, by all means, avoid any sudden and violent exertions of strength, as fatal consequences have been known to result from such causes

SCURVY (Stomacace).

This disease prevails chiefly in cold, northern countries; especially in low, damp situations, near large marshes or great quantities of stagnant water. Sedentary people of a dull, melancholy disposition, are most subject to it. It proves often fatal to sailors on long voyages, particularly in ships that are not properly ventilated, and have many people on board, or where cleanliness is neglected.

Causes—The scurvy is occasioned by cold, moist air; by the long continued use of salted or smoke-dried provisions, or of any kind of food that is hard of digestion and affords little nourishment. It may also proceed from the suppression of customary evacuations, as the menses, the hemorrhoidal flux, etc. It is sometimes owing to a hereditary taint, in which case a very small cause will excite the latent disorder. Grief, fear and other depressing passions, have a great tendency both to excite and aggravate this disease. It may likewise proceed from neglect of cleanliness, bad clothing, the want of proper exercise, confined air and unwholesome food.

Symptoms—It may be known by unusual weariness, heaviness and difficulty of breathing, especially after motion; rottenness of the gums, which are apt to bleed on the slightest touch; a disagreeable breath; frequent bleeding at the nose; cracking of the joints; difficulty in walking; sometimes a swelling and sometimes a falling away of the flesh of the legs, on which there are livid, yellow or violet-colored spots; the face is generally of a pale or leaden color. As the disease advances, other symptoms come; as decayed teeth, foul, obstinate ulcers, pains in various parts, especially about the breast, dry, scaly eruptions all over the body, etc. At last, a wasting or hectic fever comes on and the miserable patient is often carried off by dysentery, diarrhea, dropsy, palsy or mortification of the bowels.

In the treatment of scurvy very little medicine is required, except for overcoming the urgent symptoms. A proper change of diet is the best curative measure that can be adopted.

Remedies—1. Should there be obstinate constipation, some cream of tartar may be taken; or a dose of castor-oil may be given in some lemon-juice or a weak solution of citric acid. If diarrhea is present, an infusion of blackberry-root, or geranium should be given.

2. In cases of land scurvy, a milk diet has often been used with good effect. This preparation of nature being a mixture of animal and vegetable properties, is of all others the most fit for restoring a decayed constitution. The most proper drink in the scurvy is whey or buttermilk; when these cannot be had, good cider or spruce-beer may be used. A decoction of the tops of the spruce-fir is likewise good; it may be drunk in the quantity of a

pint twice a day; tar-water may be used for the same purpose, or a decoction of any of the mild, mucilaginous vegetables, as sarsaparilla, marshmallow-roots, etc. Infusion of the bitter plants, as tansy or century, is likewise beneficial.

3. Obstinate and foul ulcers should be washed with lemon-juice, and dressed with a poultice of yeast, or yeast and elm-bark. A poultice of cranberries will be found excellent.

4. If the skin become affected with spots, scabs or scales, wash the whole surface once a day with a water made acid with vinegar or a little muriatic acid.

5. For spongy gums, apply a solution of alum.

6. The plant called the narrow dock is excellent for scurvy. There is no doubt that this article possesses, in a high degree, the power of curing this disease. If the fresh roots can be procured, a small handful of them may be sliced up and steeped in a quart of water, of which the patient may drink from a fourth to a half teacupful four times a day; and if the dried root is used, one teaspoonful of the powder may be steeped in half a teacupful of hot water, and taken as a dose four times a day.

7. The common burdock has also been advantageously used in cases of scurvy, and if the narrow dock cannot be procured, this might be substituted for it. The medicinal powers of the smooth or broad-leaf dock, which so nearly resembles the narrow kind, is said by some to be fully equal to the latter, in the cure of diseases of the skin, for which it is so celebrated; and in the absence of the narrow, the broad-leaved dock may be used instead.

8. Perhaps the best curative agent, in this disease, is the juice of the lemon. Take a tablespoonful, three times a day. When the lemons cannot be obtained, the oil or the sirup of lemons may be substituted in their place.

Accessory Treatment—If there is reason to believe that the disease proceeds from a sedentary life or depressing passions, as grief, fear, etc., the patient must daily take as much exercise in the open air as he can bear. When the scurvy has been brought on by a long use of salted provisions, the proper medicine is a diet consisting chiefly of fresh vegetables of all kinds. Over and above all, experience classes onions in any form as the most salutary; the use of these, with milk, herbs, fresh bread and fresh beer or cider, will seldom fail to remove scurvy of this kind, if taken before it is too far advanced; but, to have this effect, they must be persisted in for a considerable time. When fresh vegetables cannot be obtained, pickled or preserved ones may be used; and where these are wanting, recourse must be had to vegetable acids. All the patient's food and drink, in this case, should be sharpened with cream of tartar, vinegar or muriatic acid. These things, however, will more certainly prevent than cure the scurvy, for which reason seafaring people, especially on long voyages, ought to lay in plenty of them.

The patient should be cautioned against any sudden movement or exertion, as these have frequently been followed by immediate death; but as strength returns, moderate exercise will prove of advantage.

ST. VITUS'S DANCE (Chorea).

This disease is characterized by convulsive movements of the limbs, occasioning ludicrous gesticulations, arising from involuntary action of the muscles. It has been wittily termed "*Insanity of the voluntary muscles.*"

Causes—Fright, irritation from teething or worms, self-pollution, deranged uterine functions, hysteria and descent from nervous, hysterical women. A frequent cause is "contagion of the eye"—that is, patients seeing others suffering from the disease are liable to contract it. Thus stammering and stuttering, local manifestations of St. Vitus's Dance, are frequently the result of seeing or imitating others having the same defect.

General Measures—The most important part of the treatment consists in the use of moral influences, especially when the disease does not occur from any appreciable cause. There must be removal from too sympathizing friends; the patient being placed under the care of a kind but firm guardian. He must be encouraged to exercise his will in the control of the muscles; if the hands be affected, he should be required to carry crockery or other fragile articles; or if the lower limbs, to walk on short stilts, etc.; if the muscles of speech be implicated, inducing stammering or stuttering, the best way is for a person to humble himself to the infant state, and be taught anew the use of language from those ingenious instructors who teach the deaf and dumb, and systematically learn to shape slowly and deliberately his mouth into the form requisite for definite enunciation. By practicing thus at leisure, and before a looking-glass, he may gain great control over the articulating muscles. Nor must he be allowed to associate with others similarly affected, nor should his disease be enlarged upon in his presence; his attention should rather be diverted from it as much as possible.

Dr. Benedict declares that out of twenty cases treated by him with the constant galvanic current, not one has failed to recover.

When the constitution is feeble, the best hygienic measures must be adopted. Forcible control of the muscles only aggravates the disease.

Remedies—1. The following infusion is a specific in this disease: Take of scullcap (*Scutellaria Lateriflora*), one ounce; boiling water, one quart; strain, and sweeten with loaf-sugar. Let the patient drink freely of this through the day; alternately with a tea made of lady's slipper, when it can be obtained.

2. If the foregoing remedy cannot be readily got, then obtain at the drug-stores or gather a quantity of the herb known as the Fever-Few (*Pyrethrum Parthenium*), and make a strong infusion of it. Take a teacupful, twice a day, and you will find it effective.

3. Tincture of black cohosh is reputed to cure without fail. Dose, twenty drops three times a day.

4. Another good remedy is to take fifteen or twenty drops of spirits of turpentine on a lump of sugar night and morning. A light dose of castor-oil should be taken after this.

Accessory Treatment—All causes of irritation must be carefully avoided, and the patient should take suitable out-door exercise, be furnished with pleasant company and something to occupy the mind. In some cases the disease results from sexual excitation and onanism. This should be looked into, and if reasonable evidence exists, means should be employed to stop it.

The body must be bathed every day, with friction in drying. The diet must be nourishing and of easy digestion, avoiding all fats and sour things. If a child, it should be taken from school and not excited in any other way. When worms are suspected to be the cause of the disease, they must be removed; or any other cause, when known, must first be cured before attempting any other treatment.

PUTRID SORE THROAT (Cynanche Maligna).

This disease generally affects the glands of the throat, while the common quinsy affects the mucous membrane. In the putrid sore throat there are also cankers, sores and ulcers in the throat, together with great debility of the system. In the inflammatory sore throat, there is always great difficulty of swallowing; whereas, in the other, these symptoms are not present.

Causes—The cause of this disease is specific contagion; it is often communicated by infection; when it is not, it most generally arises from cold, in habits predisposed to the disease. Whatever tends to produce putrid or malignant fevers may occasion the putrid, ulcerous sore throat; as neglect of cleanliness, unwholesome air, damaged provisions, etc.

Symptoms—Some consider this disease the same as scarlet fever; but, although very similar, there is in some respects a marked difference. The symptoms of this complaint are chills, fever, stiffness of the neck, soreness and inflammation of the throat. Ash-colored spots appear upon the inflamed parts, which produce deep ulcerations. The breathing and speaking are attended with a peculiar noise and hoarseness. It is ushered in with sickness, vomiting, looseness and great anxiety. The pulse in general is small, quick and fluttering. The countenance is often full and bloated,

sometimes pale and sunk, and the breath is intolerably offensive. The ulcers become livid or black, and sometimes gangrene to a considerable degree takes place. Putrid symptoms now appear, under which the patient sometimes sinks in a few days. At the close of the disease, hemorrhage from the mouth, nose and other parts takes place.

Remedies—1. Take one half pint of good vinegar and as much water, one tablespoonful of salt and one teaspoonful of cayenne pepper. Simmer them together for ten minutes, strain and give one teaspoonful every hour until favorable symptoms appear; after which repeat the dose every two or three hours. When this remedy is employed in the first stages of the disease, frequently no other will be required.

2. A plaster, made by melting rosin and adding to it equal parts, each, of honey and powdered camphor, spread upon flannel and worn around the throat for several days is effective.

3. Take sumach-berries, or the bark of the root, white-oak bark and blackberry-root, of each a handful; make a strong decoction; add to a pint a lump of alum nearly as large as a walnut, and when cool strain and use it as a gargle, and apply it to the ulcers frequently. It is an infallible remedy.

4. When there are putrid symptoms, such as offensive breath, pale countenance, livid lips, cold extremities, and sinking of the vital energies, give the patient, if an adult, a tablespoonful of yeast, frequently repeated.

5. Lime-water makes a very efficacious gargle in this difficulty. It should be used every one or two hours, prepared as follows: Pour upon a quarter of a pound of fresh unslaked lime, two quarts of hot water. After standing several hours, carefully pour off the clear liquid, without shaking up the lime.

6. A gargle of wild indigo (*Baptisia tinctoria*) is usually very prompt in arresting putrid sore throat. It is an herb that grows very plentifully in almost all parts of the United States, and it may be had at all drug-stores.

7. A flannel cloth, saturated liberally with kerosene, and worn about the throat is an excellent remedy, and often cures on the first application. The following is likewise a good remedy: One teaspoonful of saltpetre and one of sugar in a glass of cold water used as a gargle every twenty minutes until relief is had, then every hour until all symptoms disappear.

Accessory Treatment—A light and airy room is very important in this disease. The patient may wash the mouth and gargle the throat with a tea made by pouring boiling water on dried apples.

The diet in all cases of inflammation of the throat, must be light, consisting of rice-water, arrow-root, thin gruel, soft boiled rice or soft toast, if the patient can swallow it without difficulty; to which may be added in malignant cases, especially when there is

great prostration of strength, milk, thin custard and beef tea; as the patient recovers, mutton-broth, and even beef or mutton, if the patient can chew and swallow them. The diet must very gradually be made more nutritious.

SEA-SICKNESS (Nausea Marina).

This affection, though very distressing, is not serious; it is caused by the motion of the vessel. The seat of the affection is in the brain, and the sickness probably arises from a deficient amount of blood supplied to that organ. The retching or heaving, and vomiting frequently occur, with intervals of extreme physical prostration; a sinking sensation at the pit of the stomach, vertigo or dizziness, headache, etc. The symptoms, especially the vertigo, are most severe in the upright posture, and are at once relieved by a strictly horizontal one. A full stomach when about to sail is apt to aggravate or cause the sickness.

Prevention—For several days before embarking, indigestible food or any irregularity in diet should be avoided. At the same time take of bromide of potash ten grain doses three times a day for two or three days before sailing. Those medicines are also most efficacious which, taken a day or two before going on board, improve the digestion. During the early part of the passage, unless the weather be very fine, the patient should remain in his berth in a horizontal posture, and take chiefly liquid food, beef tea, chicken broth, etc. Good draughts of warm water oftener relieve than anything else. Warmth to the stomach and feet tends very much to prevent sea-sickness. Anything to amuse and divert the attention from the waving posture is useful.

The following simple means of preventing sea-sickness seems rather incredible, though it comes so well vouched for; we therefore give it for what it is worth. The writer says: "A sheet of ordinary note paper worn over the stomach, next to the skin will prevent sea-sickness. A lady residing in New York, suffering from sea-sickness in going down the harbor only, was relieved by the above; and ever after, with this little safeguard, found the sail pleasurable."

Another measure of prevention is to pass a broad belt around the body and place within it, on the region of the stomach, a pad stuffed with wool or horse hair; this, when tightly braced, restrains the involuntary motion of the stomach, occasioned by the lurching of the vessel. During sickness, very weak, cold brandy and water will be found the best means of allaying the heat and irritation.

The following remedies have been used and in most cases pronounced successful, although we rather give preference to the first.

Remedies—1. The essence of peppermint, particularly after

free vomiting has occurred. To one teacupful of hot water add a teaspoonful of the essence; sweeten, and take a swallow occasionally. If made warm each time, it will probably be more effective.

2. One or two drops of petroleum on a small lump of sugar, repeated every two or three hours.

3. Champagne or any form of carbonated water is a pleasant remedy.

4. Chloral hydrate in doses of twenty grains is considered efficacious.

5. Fifteen grains of bromide of potash in a half glass of water, warm if possible.

A medical writer gives the following experience and mode of treatment, while on board a vessel at sea: "A lady and two daughters, very ill indeed, attracted my attention. I approached them with a suggestion to give relief. It was accepted. Ladies, I said, if you will each drink a tumbler full of tepid fresh water, I promise you rapid relief. The water was drunk. The stomach very shortly responded by ejecting the liquid. No more vomiting occurred. A young married couple were victims of sea sickness also. I proposed the same treatment with the same results. I went a little further with the gentleman. Shortly after relieving the stomach with the warm water, I requested him to take a glass of cold water. The effect was magic. Though we had five hours' steaming still to get through before arriving at Southampton, I had the satisfaction of seeing my patients relieved permanently."

SCROFULA, OR KING'S EVIL.

Causes—There can be no doubt that hereditary predisposition goes before all others. Want of pure air, unhealthy occupations and deficient supply or improper quality of food, may serve as causes of this disease.

Two other potent causes of scrofula have been pointed out by Dr. Piddock; they are hereditary predispositions, occasioned by tobacco-smoking on the part of the father, and the existence of leucorrheal discharge on that of the mother. To both of these we would draw special attention.

Indulgence in tobacco-smoking, more especially when the habit becomes frequent and inveterate, or where it has been acquired early in life, is a fruitful cause. The pale, sallow complexion, the frequently disordered digestive functions, and the debilitated or consumptive frames of many young fathers, in the present day, attest the pernicious tendency of the habit in question.

Symptoms—This disease affects the glands chiefly, and consists of small kernels under the skin of the neck and under the jaw, where they remain for a long time, often gathering and breaking. The eyelids are often attacked, when they thicken and become in-

flamed, discharging a thick mucus. In children, the glands of the neck and chest are the most usual seat of scrofulous disease, though it sometimes settles in one of the joints of the hip, producing what is known as coxalgia, or hip-disease. In adults the lungs generally suffer, and this local affection is called tuberculous consumption.

Remedies—1. The Oregon grape-root (*Berberis Aquifolium*) is a new, yet a sovereign remedy for this disease. Use the fluid extract, which is now kept in almost every drug store, and is manufactured by Parke, Davis & Co., at Detroit. Dose, twenty drops, twice a day.

2. Take a handful of walnut-leaves, bruise and steep in a pint of water. Strain and sweeten. A grown person should take about one-third of this quantity during each day. No visible effect may be noticed for two or three weeks, but afterwards the curative effects will rapidly follow. "When this remedy is persevered in," says Dr. Negrier, a distinguished French physician, "it will certainly effect a cure."

3. A preparation obtained from the action of aquafortis on copper coin, is exceedingly efficacious in this disease, or a preparation of acetate of copper. In reference to this remedy, Dr. Hall says: "A few years ago, a distinguished western millionaire wrote of a favorite remedy for scrofulous ulcers, 'I have never heard of a case where it did not effect a speedy cure, and it can in no case do any injury. In several instances where it has been applied to old sores, it has also speedily effected perfect cures.' Put one ounce of aquafortis in a bowl or saucer; drop in it two copper cents—it will effervesce—leave the cents in; when the effervescence ceases, add two ounces of strong vinegar. The fluid will be of a dark-green color. It should and will smart. If too severe, put in a little rain-water. Apply to the sore morning and evening, with a soft brush or rag. Before applying it, wash the sore with water. Its first application known to me was a poor girl sent to our city from Memphis to have her leg amputated, as it was feared she might not live long enough to have it cut off in that hot climate. She was refused admittance to the poor-house, and was lying on the sidewalk, as she could not even stand up. From her knee to her foot one-third of the flesh was gone, and all the skin except a strip about two inches wide. She was laid on a bed, and the remedy placed on a chair by it. She could rise up and apply it. In a few days she declared it was getting well. It was supposed it was a relief from the pain only, but when examined, fresh flesh was found growing, and skin over it. She was soon running about and insisted on working, which delayed the entire cure, leaving a small sore, which was, however, in a few months entirely healed. A young girl with scrofula on her neck having a large open hole, and deemed incurable, came and in one month after was entirely cured. I have never known a case where it did not effect a cure."

4. When scrofulous tumors have not yet discharged any mat-

ter, they should be dispersed, or "scattered" by the following means: A poultice of yellow dock or burdock-leaves, pounded and made into a plaster, with some corn-meal and vinegar. Or, a poultice of stramonium, or jimson-leaves and poke leaves, equal parts, may be pounded together, and applied over the tumors, changing them twice a day.

5. After ulcers have formed, it is best to heal them as soon as possible. For this purpose, wash them two or three times a day with castile soapsuds, to which a small quantity of whisky, or two or three drops of carbolic acid, has been added, and then apply one of the following ointments:

Take sweet cream, scrape some fresh carrots in it, and beat them together; strain off the cream by squeezing it in a coarse cloth.

Take, of sweet-oil and linseed-oil, each one ounce, boil them in a tin vessel until they will scorch a feather, then gradually sprinkle in an ounce of red lead, stirring it all the time. As soon as the mixture is black, or dark, remove from the fire, set the vessel in some cold water, stirring all the time. When it is nearly cold, add gradually half an ounce of finely powdered camphor, stirring the whole together thoroughly. Apply twice a day.

6. If the tumors are much inflamed, apply a poultice of bran and slippery-elm bark. Linseed-meal and slippery-elm are very good. Apply cold, and renew when dry. The poultice is almost sovereign when the tumors burst, if it is mixed with the pulverized bark of the root of bayberry and a little sweet-oil. First cleanse the tumor well with the wash previously mentioned; then apply the poultice. The extract of red clover is very good for this purpose. It is made by boiling the flowers in water, then strain and reduce it to an extract by boiling.

Accessory Treatment—Moderate exercise in the open air is essential; and to carry out this suggestion, the patient should endeavor to take exercise with the mind agreeably occupied, rather than follow it as an irksome task. Moderate gymnastic exercises are beneficial; but profuse perspiration should be avoided.

The food of scrofulous patients should always be of the most nutritious character, light and digestible. Beef, mutton, venison and fowls, are the best kinds of animal food; to these should be added preparations of eggs and milk, a due quantity of bread, mealy potatoes, rice and other farinaceous principles, as more suited to this class of patients than succulent and watery vegetables.

Cod-liver oil as a supplemental article of diet, is an agent possessing such remarkable and well-known properties for arresting general or local emaciation as not to require further recommendation here. It may be given in almost any case in which a patient is losing flesh, in tablespoonful doses, two or three times a day, commencing even with a half a tablespoonful, if it be found at first to disagree.

Bathing, both in fresh and salt water, is invaluable, as a means of promoting a healthy action of the skin, and of imparting tone to the whole system.

Clothing should be adapted to the season, and should be warm without being oppressive. The extremities especially should be kept warm. As a general rule, flannel should be worn, but only during the day; in winter it affords direct warmth, and in summer it tends to neutralize the effects of sudden changes of temperature. The linen should be frequently changed, always observing that it is put on perfectly dry.

The patient should constantly bear in mind that in order to effect a cure, he should take daily exercise in the open air.

SORE THROAT OF PUBLIC SPEAKERS—CLERGYMEN'S SORE THROAT (Laryngitis).

Causes—This condition is probably oftenest induced by the exercise of the organ of voice (vocal chords) when in an inflamed state. An extension of the affection is almost certain to result from exercising the voice during an attack of sore throat or hoarseness, as the muscles of the wind-pipe lose their nutrition through extension of the morbid materials from the inflamed mucous membrane. The disease may also result from an immoderate or irregular exercise of the voice, or it may follow inflammatory disease of the bronchial tubes or lungs, by much exercise of the voice before recovery has taken place. It is also occasioned by an unnatural style or tone of reading or speaking, as with preachers and military officers.

The affections designated by the above names, being of a similar nature, and requiring similar treatment, are included in this caption.

Symptoms—The patient first complains of an uneasy sensation in the upper part of the throat, with a frequent disposition to swallow, as if something existed there which could thus be removed. If proper treatment be not adopted, the voice soon undergoes a change; it becomes feeble and hoarse, and sometimes, especially towards the evening, there is complete loss of voice. The patient complains of pain in the upper part of the wind-pipe, and makes frequent efforts to clear the throat of phlegm by coughing and spitting. On looking into the throat, the parts are found to have an unhealthy appearance, being raw and granular, and the mucous glands filled with a yellowish substance; a viscid mucous secretion may also be seen adhering to the palate and adjacent parts.

Remedies—1. In the milder forms of this disease, the inhalation of the vapor of vinegar, and frequently gargling the throat with a mixture of vinegar, rain-water and salt, together with an absolute rest of the voice, will be found sufficient to remove all

symptoms of the disease. In the winter season, the feet should be well warmed, for half an hour or an hour, previous to retiring, and this should be repeated every night through cold and changeable weather.

2. In severe cases, take equal parts of oil of turpentine and olive-oil. Mix, and apply twice a day.

3. The active principle of the stone-root (*Collinsonia Canadensis*), called *Collinsonin*, prepared by druggists, is an efficacious agent in this affection. Dose, one or two grains, three times a day. This acts very promptly, and is, perhaps, the best in use for this difficulty.

4. The mullein is also a very excellent remedy. The *Medical and Surgical Reporter* says: "In that form of disease in which there is dryness of the wind-pipe, with a constant desire to clear the throat, attended with little expectoration, and considerable pain in the part affected, the mullein smoked through a pipe acts like a charm and affords instant relief. It seems to act as an anodyne in allaying irritation, while it promotes expectoration, and removes that gelatinous mucus which gathers in the wind-pipe, and, at the same time, by some unknown power, completely changes the nature of the disease, and if persevered in, will produce a radical cure."

5. When the palate is found elongated, a portion of it may be cut off by a surgeon, without any danger, and this should always be done to lessen the irritation caused by it; and should the tonsils be enlarged, they should likewise be properly excised by a surgeon.

Accessory Treatment—The most important is to exercise a sore or inflamed organ as little as possible. The treatment of an inflamed wind-pipe, like that of an inflamed joint, should include a state of almost complete rest. As a preventive remedy in the case of clergymen, we would strongly urge the general adoption of Monday as a day of out-door recreation and cessation from all work, and thus compensate for the great mental and physical expenditure involved in the discharge of the duties of the earnest minister of the gospel on Sunday.

A throat compress should be applied when the patient retires, and he will generally have the satisfaction of finding his throat-difficulty much relieved in the morning. In more obstinate cases, the compress should be worn in the day-time, re-wetting it as often as necessary. When discontinued, the throat and chest should be bathed with cold water, followed by drying and friction. However often repeated, the compress never relaxes the throat.

The beard and moustache should be permitted to grow, as they afford an excellent protection to the throat, especially in the case of barristers, clergymen, public singers and others subjected to the undue or irregular exercise of the organ of voice.

SYPHILIS, OR POX.

Causes—This disease is most frequently caused by impure sexual intercourse; though should either of the parents be affected with the disease, the child may inherit it. If a child has syphilitic disease of the face, it may communicate it to the nurse. Or, should the nurse have syphilitic disease of the nipples, breast or face, the child may contract it. It may also be communicated by contact with the syphilitic virus in water-closets.

Symptoms—These are of three kinds or orders. Physicians term them primary, secondary and tertiary. The first appears within a few days after one has been exposed—say, from two to ten—in the form of sores on the sexual organs; and sometimes there appears, at the same period or a little later, a swelling in the groin. This may form matter, break and discharge, and make a sore, like the others very hard to heal. Or, it may pass away without breaking, or even heal quickly and kindly, following a gathering and discharge. In the female, these sores may be on the outside parts, or within the vagina and water-passage, or on the womb. These sores are sometimes light and transient; but where they indicate the coming on of the secondary stage of the disease, they are hard, deep, red, angry and malignant. In people of bad health or habits, the sore sloughs and spreads rapidly, and looks dark and livid.

The second stage is indicated by the appearance, on various parts of the person, such as the tongue, lips, throat and wind-pipe, of ulcerous sores, mattering about the roots of the finger-nails and inflammation of the colored part of the eye. Sometimes there are pains, like those of rheumatism. Syphilitic sores are of various kinds, and are generally long-continued, of a brassy or copperish color, often scaly, and very likely to poison the surrounding flesh, producing tubercles of a brown color surrounded by a dark-red circle and likely to pass into offensive ulcers. These external appearances are sometimes, however, simulated by other diseases.

The third stage is simply a more advanced period of the disease, attested by the general aggravation of the symptoms. The skin-affections seem deeper seated, and the portions of the bones become enlarged. They become inflamed, decay and die; especially those of the nose, palate and shins. It is generally several years before these symptoms appear. When deep-seated pains in the bones follow the earlier symptoms we may conclude them syphilitic, and that the disease is still going on.

Primary syphilis is certainly contagious. As to the later stages, the authorities differ on this point; though we are inclined to the opinion that it is not. But we ought to say that, in order to communicate syphilis, it is in general necessary that actual contact should take place. During the continuance of the primary symp-

toms, the disease is liable to be transmitted to offspring and in many cases, the secondary form also.

Remedies—1. The plant called *stillingia*, or yaw-root, is generally a successful remedy for the cure of this disease. Dose of the decoction, from a half to a wineglassful, three times a day; of the tincture, one teaspoonful. The compound sirup is a good preparation to take, and may be had at any drug-store; the dose of this is a teaspoonful, three times a day.

2. "For many years past, when an ulcer remains unbroken and in pustular form, in which condition it is not acted upon by the oxygen of the atmosphere, I have been in the habit of rupturing the pimple with a needle, and then at once applying a few drops of nitric or muriatic acid. I do not believe that absorption of the syphilitic virus, to any dangerous extent, takes place until after the exposure of the open ulcer to the atmosphere. In some few cases the acid causes pain for a short time, but in most instances the pain is slight. I have treated some hundreds of cases in the above manner, and have not yet heard of any return of the disease in constitutional form."— *Prof. King.*

3. Ricord, the great French authority on this subject, has introduced a new treatment for syphilis with iron. One part of the potassio-tartrate of iron is dissolved in six parts of water, and two teaspoonfuls are given three times a day. The same solution is applied to the external sore or chancre. This author says that no secondary symptoms have been known to occur after this treatment.

4. Take, of compound sirup of stillingia, two fluid ounces; a strong tincture of sheep-laurel, two fluid ounces; strong tincture of poke-root, two ounces. Mix. Dose, one teaspoonful, three times a day. This remedy has cured many bad cases in from four to six weeks, and is the favorite treatment of some eminent physicians.

5. The black oxide of mercurius will cure recent, uncomplicated cases of this disease when employed in the manner specified below. The second decimal attenuation of this medicine is that which is employed, and will usually have to be procured at a Homœopathic drug-store. Of this, take one-half a grain, morning and evening, either dry, on the tongue, or in a little water. Frequently, the first signs of cure are manifest at the end of twenty-four hours, and often a radical and permanent cure is effected in seven days, and always in from seven to twenty-one days.

6. The third potency of sulphate of Arsenicum is likewise an effective remedy for this disease. Dose, two grains, in acute cases, every three hours, in the chronic form, four times a day. In the latter case, it should be taken from four to six months. To be had at homœopathic drug-stores.

7. A new and highly praised remedy, in the third stage, is *Succus Alterans*. It can be had at most any drug-store.

In old or chronic forms of syphilis no physician can, or should

promise a cure in any specified time. In such cases, it may require months to eradicate the poison from the system. Persons affected with this form of the disease cannot and ought not to expect that a speedy cure can be made. On the contrary, much time and patience of their own, together with proper attention to diet and due diligence to avoid exposures—as extremes of heat and cold, dampness, fatigue, etc.—will be necessary. All sexual indulgences are strictly to be prohibited, and a rigid temperance in all other things absolutely maintained.

External Treatment for Chancre—The best agents for its destruction are the following: Nitric acid, carbolic acid and the tincture of iron. The chancre should be carefully wiped out, with dry lint or cotton, until it is well cleaned of the discharge that accompanies it. When this is done, take a small piece of wood, like a match, and dip it into the remedy to be used (I always prefer the nitric acid), and with this carefully but thoroughly touch every portion of the chancre, re-dipping the stick several times at each treatment, and wiping dry after the application. Now, moisten a little cotton or lint with glycerine, and lay it over the chancre as a dressing. It should be treated in this way only once a day, for four or five days, or until the chancre is destroyed; but the glycerine-dressing should be applied, or changed, two or three times daily. If the patient should use the carbolic acid or the tincture of iron, he should apply it in precisely the same manner. In case he should use the nitric acid, he should always remember to immediately wash the ulcer with equal parts of vinegar and water, in order to neutralize the acid.

Bubo—As soon as a chancre makes its appearance, the groins should be carefully watched. If any soreness or swelling takes place in that locality, a bubo should at once be suspected. Use, immediately, the following, over the sore or tender spot: Tincture of iodine, one ounce; glycerine, half an ounce. Apply twice a day, with a camel's hair brush, or some other convenient implement. After this, apply a poke-root poultice, made by roasting the fresh root in hot ashes until it becomes soft, then mashing it. If this root cannot be had, use a poultice of elm-bark and stramonium-leaves. Should the bubo continue to increase in size, and pass on to suppuration, or, in other words, to form matter, it should be opened with the knife, with a free incision, and injected, once a day, with castile-soapsuds and spirits, followed by an injection of the tincture of the muriate of iron.

SECONDARY SYPHILIS.

Remedies—1. In this disease, a remedy has recently been introduced to the medical profession, the use of which has been attended with excellent success. It is the Oregon grape-root (*Ber-*

beris Aquifolium). The fluid extract of this root can be procured at the drug-stores. Take, of this, one tablespoonful; four of simple sirup; and as much water. Mix. The dose is one tablespoonful, morning and evening. Some practitioners consider it advisable to combine iodide of potash with this remedy. In this case, four grains may be added to the whole of the above preparation, and taken as before.

2. The plant, called the turkey or squirrel-corn (*Corydalis Formosa*), is regarded by Eclectic physicians as very nearly a specific for the cure of syphilis. As a blood-purifier, in this disease, it is unsurpassed. Dose of the tincture, one teaspoonful; of the extract, which is a fine powder, from one-half to a grain, three times a day, until cured.

3. Take one pint of the sirup of sarsaparilla, two fluid ounces of the strong tincture of poke-root, and one drachm of iodide of potash. Mix. Of this, take one teaspoonful, three times a day. This is popular with the "New-School" physicians; yet it may require weeks, and even months, to effect a cure, as it usually does in this form of the disease.

4. In secondary syphilis, Prof. E. M. Hale, author of "New Remedies," has used the pleurisy-root (*Asclepias Tuberosa*) successfully. Dose of the tincture, thirty drops to a teaspoonful, three times a day. It is a harmless drug.

Syphilitic Rheumatism—This is rheumatism of the long and flat bones, between the joints. The remedy for this is ten or fifteen grains of the iodide of potassium, three times a day, until the symptoms have disappeared, and to be taken again should they return. It is believed that this will cure where cure is possible.

Strict compliance with the rules given in the following paragraph, should be followed in all cases of syphilis:

Accessory Treatment—The diet of the patient should be nutritious and easy of digestion, avoiding acids, all greasy food, alcoholic drinks and much exercise. Exposures to cold must be carefully avoided. Persons free from syphilis should not sleep in the same bed with those who have it; and, both in gonorrhea and syphilis, patients should be particular not to get any matter upon the fingers or towels, lest it come in contact with the eyes and occasion loss of sight.

SPERMATORRHEA.

Spermatorrhea is a disease characterized by involuntary discharges of seminal fluid. This may occur either with or without pleasurable sensations. Impotency is an accompaniment, or more perfectly speaking the sequence of spermatorrhea. These discharges may occur in the day time or only at night.

Causes—The causes of spermatorrhea are masturbation, sex-

nal excess, mental emotion, nervous prostration, or diseases of the sexual organs.

Symptoms—The symptoms are very plain; the seminal fluid is passed in an involuntary emission at night, more frequently than it should be. After this is continued for a certain length of time the emission may come in the daytime or upon any emotional excitement of the genital organs; later the semen often comes away while water is being made, and while at stool, although this is not uncommon when straining at stool, even in perfect health. Impotency, as has been before said, is an accompaniment of spermatorrhea although not always.

Treatment—The milder cases will often, when the cause is removed, recover themselves. Proper attention to diet and the state of the bowels should be given, and a system of cold sponge baths in the region of the loins will do a great deal to assist nature. An injection of cold water will stimulate the parts and bring them back to their normal state. Sleep in a hard bed, and in exercising do not ride horseback or a bicycle. The use of electricity is often of great benefit. Internally, an ounce three times a day, of a decoction of black cohosh, to which there has been added twenty grains of bromide of potash, will usually cure this affection. We again repeat the caution heretofore given. Be especially prudent in regard to diet, eat common, easily digested food, but little meat; no condiments, pastries, pies, cakes, or highly seasoned food; arise early in the morning, keep the bowels free, eat fruit in the forenoon freely, sleep regularly, avoid excitement and everything in its nature calculated to arouse or awaken sexual thoughts or desires.

IMPOTENCE.

By sexual impotency is understood an impossibility or difficulty in the accomplishment of the act of copulation. Impotency indicates the existence of some malformation, disease, or derangement of the sexual organs. A man may be impotent without being sterile and sterile without being impotent. The common cause of impotence is a lack of power in the erectile organ. This may arise from several causes. Sexual abuse, excessive venery, nervousness, or disease of the nervous system and debility of nerve force; it may be general or local. Malformation of the parts can only be remedied by the surgeon, therefore we deal simply with the lack of power. When this arises as a result of sexual or mental excitement which may be only of a temporary nature, it may be left entirely alone, be capable of recovery, but it strikes the note of alarm that the organism is too weak to bear exhaustive strains, and he who cares for his future will heed the warning and restrain his indulgences within prudent bounds.

Remedies—1. A successful one is the application of electricity directly to the part; and a most scrupulous prudence against excesses of whatsoever kind; no tobacco, no stimulants; plain food, fresh air, and wholesome exercise. If the cause is excessive sexual abuse, or mental anxiety, and the use of a battery cannot be obtained, the first thing to be done is to tone the organs, the nervous and the muscular system, and remove the cause of excitement. Salt water sponge baths of the weakened organs is among and one of the best methods of procedure. Put a handful of salt into a quart of cold water and sponge the hips and loins at night and morning, then rub dry with a very rough towel. This must be continued for at least a month and longer if necessary. Nutritious food like eggs, oysters and raw meats must be eaten.

2. Take one-half a teacupful of the infusion of unicorn root (*Helonias Farinosa*), two or three times a day. If the powder be used take twenty or thirty grains. This will soon relieve the inactivity, and give the usual tone, vigor and healthy action. When the organs are healthy, and it is desired to arouse their activity at any time, use vanilla, the same that is employed to flavor sirups, ice-cream, etc. It is thought, by some, that the infusion is the preferable preparation. It is prepared by taking one-half ounce of the powdered bean to one pint of boiling water, in doses of two or three tablespoonfuls, three times a day.

3. The concrete, resinous juice of hemp, called churrus, which is found in drug-stores, it is said, will increase the sexual passions. But it is so weak as generally to require ten to twenty grains to affect the system. The dose, of the good article, is half a grain to a grain. In large doses, it produces delirium. It is narcotic, and may be used in place of opium.

4. The following is a new remedy: It is the damiana (*Turneria Afrodisiaca*). Dose, of the fluid extract, one-half to one teaspoonful. Of the solid extract, from three to six grains. Of the sugar-coated pills, one to two pills. Many cases of total or partial impotence have been cured by the use of this drug, where the usual remedies have given no relief.

Thoroughly bathe the private parts in very cold water, at night on retiring, and also in the morning on rising. The bathing should be repeated in this manner until the impotency is removed and the natural use of the organ can be secured. Sometimes this will be accomplished within forty-eight hours. But if necessary it should be persevered in for weeks or months.

CEREBRO SPINAL MENINGITIS (Spotted Fever).

Epidemics of cerebro spinal meningitis occur at all seasons, but by far the greatest number in cold weather. All classes and

ages are subject to it, but it is most likely to attack those between ten and eighteen years of age. Its strongest predisposing cause is malaria, overcrowding, bad ventilation, insufficient, or improper food, sudden severe colds, dampness, or other bad hygienic conditions, mental excitement, excessive brain work, or bodily fatigue: exposure to excessive cold or heat, or constitutional tendency, are all predisposing causes. It is not a contagious disease.

Symptoms—The symptoms vary in different epidemics. In some, the invasion is abrupt; the patient apparently in perfect health is suddenly seized with a chill, directly followed by a loss of consciousness, becoming comatose, and dying in a few hours. In others, a feeling of lassitude, dull headache, pain in the joints and muscles, and sometimes nausea and vomiting precede its development. Again, the patients complain of pain in the back of the head and neck, extending down the back; they have no chills, but after twenty-four hours a febrile excitement is developed; from this they pass rapidly into the acute symptoms of the disease. The advent of this is marked by a distinct chill, intense headache, pain in the back and upper part of the spine, nausea, vomiting, a rise in temperature and rapid pulse. The chill may last an hour or more, but usually is of short duration. The skin is cool and dry in the early stage. Headache in most cases is a prominent and agonizing symptom and the pain even in a condition of coma causes the patient to groan. Vertigo is a frequent attendant upon this trouble, and the patient may stagger and fall. Pain in the back part of the spine is also a characteristic symptom. Attempts to flex the head on the chest increase the pain, during the first twenty-four hours, and pressure on the back part of the head causes excruciating pain. Soon the muscles in the back part of the neck become stiff, then rigid, making it difficult for the patient to swallow on account of the bending back of the neck, the body becoming arched. The temperature is not always high, but may suddenly become so. The pulse twenty-four hours after the attack may range from 120 to 150; it is feeble and easily compressed. The pupils of the eyes are contracted and shun the light, the face is pale and there is great restlessness. About the second or third day of the disease delirium comes on. It may be mild and muttering, or wild and uncontrollable. The body seems filled with pain, and the skin is extremely sensitive when touched. An eruption now may appear, usually on the face and neck, or on the lips; sometimes the eruption is mottled like typhus, and covers the body. Purple spots caused by extravasations of blood under the skin, now appear, that give it in some localities, the name of "Spotted Fever." The respiration is jerky, and out of proportion to the frequency of the pulse. The tongue at first moist becomes brown and dry. In a short time exhaustion, paralysis, and stupor appear; and soon the scene closes in death. Convalescence in case of recovery, is slow and tedious; the muscles of the head and neck remaining stiff for a long time. If the patient

lives for ten days after the initial fever, recovery is the rule, although painful and gradual.

Treatment—The following treatment is recommended by Dr. Gross, of Edinburg: "Keep the bowels open, and the body warm; immersion in a hot bath, made strong with salt and mustard is good to bring the blood to the surface. Another way is to wrap the body in a woolen blanket wrung out of hot water, and place outside of the blanket bottles filled with hot water, and cover over close; this will induce a copious perspiration and afford relief. Warm ginger tea is useful to generate internal heat, and tincture of pepper for outward application, with friction on the skin. If the pulse is high, give two or three drops of extract of (American Hellebore) *Veratrum viride* every hour, diluted by adding one teaspoonful of water to each drop of the extract. Guard against constipation, retention of urine, convulsions, etc., and if the head is severely pained, relieve by dry cupping over the neck and spine. It has recently been discovered that the yellow jessamine (*Gelsemium sempervirens*) is a sovereign remedy for the cure of this disease. Many well authenticated cases have been cured by it. The dose for an adult is from five to ten drops every three hours."

The proper measures to be observed during an attack of cerebro spinal meningitis, may be summed up in careful attention to surroundings, remove all disturbing influences, and isolate the sick. Place the patient in a cool well-ventilated room. The thirst which is so tormenting may be relieved with ice or carbonic acid waters. If constipation exists, give a good cathartic, say, a tablespoonful or two of epsom salts, or a compound cathartic pill. See that the patient urinates freely. Give fifteen drops of spirits of turpentine for this purpose. Iodide of potash in doses of five grains, gradually increased to ten or even twenty grains for an adult, at intervals of six to eight hours, is recommended as calculated to diminish the congestion: to maintain nutrition and allow the system to tolerate and overcome the disease is of prime importance.

A blister should be placed on the back of the neck in the commencement of the disease and a hot mustard foot bath given. When the active symptoms are passed, give as a tonic, iron in tincture, five drops three times a day. The diet should be simple and nourishing at this period. Milk is the best food, but light puddings may be given with broth and soup.

We have been brief in the treatment of this disease for the reason that persons afflicted with it are almost invariably placed under the care of a physician.

INGROWING TOE-NAIL.

This is a very troublesome, and often painful affection. The edges or sides of the nail are disposed to turn down and grow into

the flesh, giving rise to inflammation, ulceration, and often great pain and suffering.

We give several modes of treatment for this difficulty, all of which are effective. The patient may select from them that which is most suitable to his condition.

Treatment—It may be remedied by softening it in warm water, then scraping it thin on the upper surface, and cutting it down as far as can be at the middle part of the extremity; avoiding cutting the parts which tend to grow in. By these means the growth is diverted from the sides, since the nail will grow most where it is cut most.

Another method is to bathe the foot well in warm lye-water at least once a day and a slippery-elm bark poultice applied immediately afterward; this will diminish excessive inflammation and render the patient more comfortable. But in order to effect a radical cure, it will be necessary immediately after the foot has been immersed in the lye-water for twenty or thirty minutes, to press down as far as possible, without exciting too much pain, pledgets of lint between the nail and the flesh, until the nail is brought upon a level with the contiguous parts; and after this has been done, if the inflammation has measurably subsided, let a narrow bandage be bound over it in order to secure the dressings. The elm-bark poultice should be changed twice a day. At each subsequent dressing cut off as much of the nail as is raised out of the tender flesh, with the point of a knife. Continue to do this until the whole of the offending portion is cut away.

The following is a good treatment, and regarded by some as superior to any other: Wash the toe in warm water, and dry the parts with cotton. Then gently press carbolized cotton between the toe-nail and the flesh, and extend it between the skin and the nail. Next, wet a piece of nitrate of silver and rub it hard upon the nail, close to the cotton, not allowing it to touch the tender flesh; putting on a thin layer of cotton and in two or three hours after a poultice around the toe. In two days that part of the nail which has been touched by the nitrate will be black, and where it was well applied will be separated from the parts underneath, and may be taken off without pain. If the nail is very thick, scrape off the black and deadened part after two days, and apply the nitrate again. This treatment is a vast improvement on the old and cruel practice of tearing off the live nail.

Dr. Finch says: "Neither of the cutting operations is at all necessary for the complete and rapid cure of ingrowing toe-nails. If a small, thin, flat piece of silver-plate be bent at one edge into a slight deep groove, and after the toe has been poulticed twenty-four hours, slipped beneath the edge of the nail, so as to protect the flesh from its pressure, and the rest of the plate bent round the side and front of the toe, being kept in position with a small portion of resin plaster passed around the toe, a speedy and almost painless cure

will take place; and the patient after the first day, has the additional advantage of being able to walk. I have followed this method in numerous cases with uniform success."

TOOTHACHE (Odontalgia).

Causes—Decay is the most common predisposing cause; sudden changes of temperature, derangements of the digestive organs, pregnancy and general bad health, are the most frequent exciting causes. When the cavity of a tooth has been exposed by decay, the pulp is extremely liable to pain from contact with food, liquids or atmospheric air; and if the health be much impaired or the central pulp greatly irritated, acute inflammation, with extreme pain may result. Neuralgic toothache occurs in paroxysms which come and go suddenly.

Remedies—1. Apply strong alum-water and salt to the tooth by means of a lock of cotton. One or two applications seldom fail to cure.

2. Bathing the gums with oil of sassafras, at the same time moistening a piece of cotton with it and plugging the tooth, will speedily cure some forms of toothache.

3. Others will be relieved by putting two or three drops of the oil of cloves on cotton or lint, and placing it in the hollow of the tooth. This remedy will not destroy the tooth or injure the gums.

4. Pains of the face and jaw, when not the consequence of decayed teeth, may be relieved by holding hot water, brandy or the diluted tincture of cayenne-pepper in the mouth.

5. Toothache, as it originates from different causes, requires, as a matter of necessity, the application of different remedies. In addition to the above, the following may often be used with success: Place something warm to the part, as a hot brick or stone, wrapped in a wet cloth; or hold the head covered with a thick blanket over steam; bathing the face or jaw with pepper and vinegar, or apply to the face a paper wet with vinegar and sprinkled with cayenne; heating substances held in the mouth, or chewing a small piece of the bark of logwood, will be found of great benefit. The same plan may be pursued in cases of ague, or pain in the face and jaw.

6. Electricity frequently gives speedy relief. Using a constant current of eight or ten elements; the negative pole is applied to the cheek near the aching tooth and the positive pole to the back of the neck

7. A bit of cotton dipped in creosote, then the excess of creosote pressed out on a newspaper, and the cavity filled with the cotton will give speedy relief.

Spongy Gums and Tartar on the Teeth—Take, of
Borax.....1 drachm.

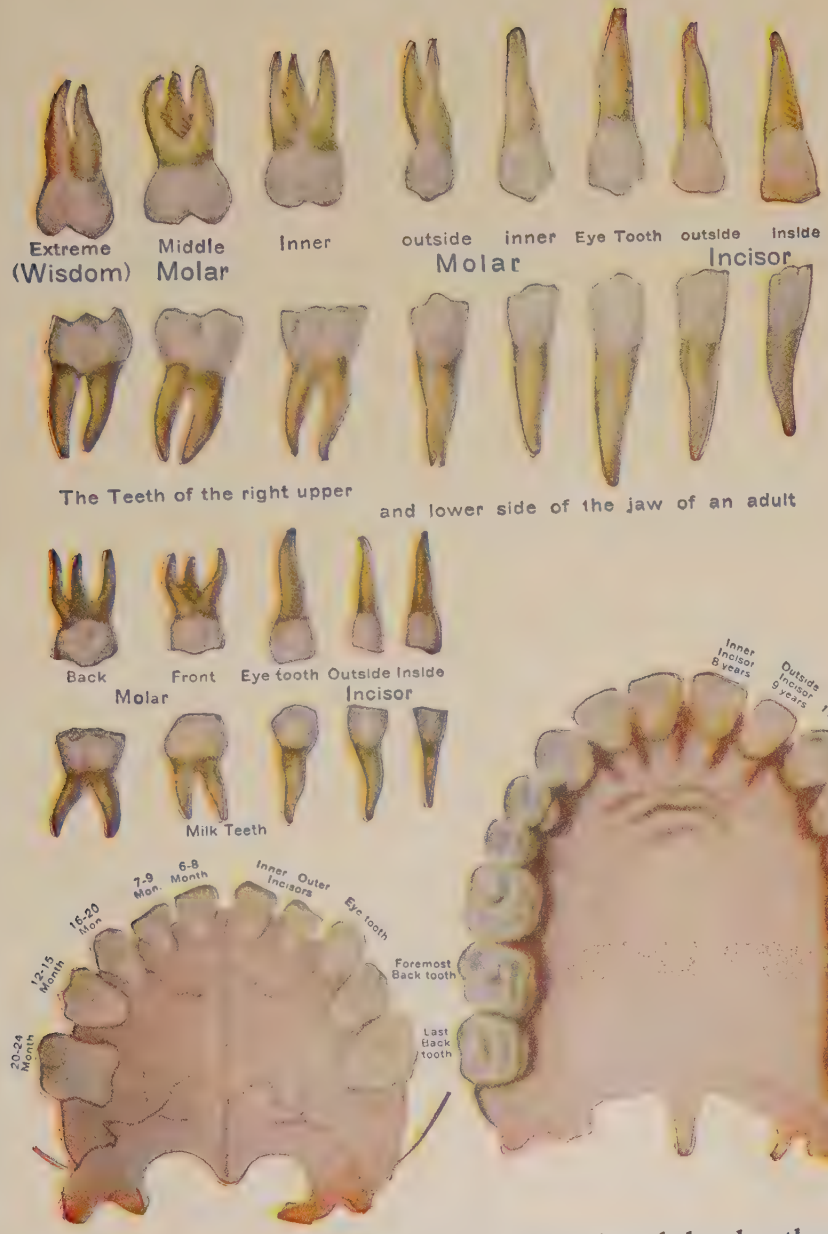


Plate showing the full set of teeth of the adult, also the first teeth of the child.

Strong tincture of camphor.....1 teaspoonful.
Soft water .....8 tablespoonfuls.

Mix. Wash the teeth and gums with it twice a week, using a soft tooth brush. This is a fine remedy for spongy gums, and also in cases where there is a tendency to their wasting away from the teeth. It will clean the teeth of all tartar, give health and renewed vigor to the gums and sweeten the breath.

Filling Decayed Teeth—If the decayed portion be recent and slight it should be removed, and the cavity filled with a suitable material by a skillful dentist. If the patient be suffering from toothache, the pain should be relieved before filling. When it is not practicable to have a tooth filled by a professional dentist, its cavity should be cleaned and filled with white wax which, by excluding the atmospheric air and the irritation of food, retards the progress of decay. But a better and more durable filling for non-professionals is the prepared gutta-percha, which if carefully introduced, after thoroughly cleaning out the affected tooth, may preserve it for years. Dr. Ringer recommends a jelly, made of equal parts of collodion and carbolic acid, to be used as a filling for hollow teeth.

Extraction of Teeth—In a few cases the only remedy for toothache is extraction; this is especially the case if the decay has proceeded so far as to blacken the tooth, rendering it loose and useless for mastication, injurious to neighboring teeth and a cause of offensive breath. On the other hand, probably in ninety-five cases out of a hundred, considerable experience justifies us in stating that the most distressing cases of toothache are promptly cured. Our advice therefore is—never extract a tooth merely because it aches, or has begun to decay. Skilled treatment is usually sufficient to remove the pain; and, subsequently, local and general measures may prevent a recurrence of the trouble.

Means of Preservation—The function of the teeth is so important that their preservation is a matter of the highest moment. The first teeth determine the nature of the second set, and persons suffer lamentably for early neglect. Proximate decay might be prevented, in five cases out of ten, by simply passing a thread between an infant's teeth, twice a week, from the time of their eruption. Professional inspection should also be sought before symptoms of decay present themselves, and while there is still hope that the dentist may fulfill what should be regarded as his mission, that of saving the teeth. Cleanliness, with respect to the teeth, is all-important for infants and children, as well as adults. The teeth should be kept clean by rinsing the mouth with pure cold water, and brushing the teeth with a moderately soft brush every morning and, if possible, after every meal, especially when animal food has been taken; and contact with all disorganizing agents avoided. The idea that brushing the teeth often is liable to lacerate the gums and separate them from the teeth is erroneous,

for it is one of the best methods of restoring them to a healthy condition when they are spongy and liable to bleed. But when a tendency to decay of the teeth or inflammatory action of the gums exists, a diluted solution of carbolic acid, myrrh or other dentifrice, should be regularly and continuously used. The habit of taking very hot substances into the mouth should be avoided, as the expansive power of heat may rupture the enamel, which in turn becomes the nucleus of decay. On the other hand, the habit of subjecting the teeth to the opposite extreme of temperature, as by eating ices, etc., is also to be avoided.

PYORRHOEA

Pyorrhoea means a discharge of pus from the tooth socket along the side of the gum. The serious feature is that when a pocket is once formed it is a permanent injury as there is no reattachment of the gum and root.

The condition is responsible for the loss of thousands of teeth—in fact, about 75 per cent of all those over fifty have lost from one to all of their teeth as a result of it. Diseases of gums is important as it may cause serious infection of the blood and other parts of the body.

While the edge of the gums are peculiarly constructed to withstand injuries as from chewing hard foods and their ample blood supply provide quick repair processes, gums are constantly injured from repeated local irritations of their margins as from the edge of a non-conforming crown or filling, from food particles which catch between the teeth, from injury by improper use of toothpicks, especially from the accumulations of tartar, or the lack of cleanliness; also from systemic disease which lowers resistance or which has a selective action on the gums.

The two principal causes are lack of cleanliness and packing of food between the teeth.

Another cause is faulty contact between the teeth which results in injury to the gum between. Food may be caught and held between the teeth and press down against the gum at each meal.

The great preventive measure is a periodic visit to the dentist for examination, and co-operation by the individual, in the daily care of the mouth to keep the gums healthy. Prevention is the best treatment.

Treatment of the condition itself includes removal of the tartar and antiseptic treatment of the parts, sometimes even cutting away part of the gums and the extraction of teeth may be necessary. A mistake is often made in trying to save a tooth too long. Go to the dentist periodically.

The liberal use of salt sprinkled on your tooth brush when brushing your teeth before retiring at night is beneficial cleansing and hardens the gums, or a weak solution of fluid extract of ipecac, two drops in a half glass of water, used as a mouth wash before retiring, will act as a preventive and perhaps as a cure in the earliest stages of this trouble.

TUMORS.

Tumors and swellings of various kinds, may be developed on any part of the body, and owe their origin to some unhealthy action.

There are several varieties of tumor, as scrofulous, cancerous, polypus, etc., some of which have been treated upon under the heads of scrofula, cancer and polypus. At this place we shall confine ourselves to fatty tumors, which are commonly met with in the region of the head.

The fatty tumor, also known as the adipose, usually presents a soft, inelastic appearance, without any pain or discoloration of the skin. It commences very small, but slowly attains to a very large size, its bulk being the only inconvenience to the patient.

Remedies—1. These tumors may often be removed by the application of caustic potash. Care should be exercised when applied over the tumor to prevent it from running over the surrounding parts. Afterwards apply a slippery-elm bark and yeast-poultice, to promote suppuration. After a few days sloughing will commence and the contents of the tumor will be discharged.

2. But the best plan, in most cases, is to remove the tumors by the knife, because the operation is less painful and tedious, and more certain.

3. Tumors may be removed, when they are pendulous, by passing a silk or linen thread around the base, and then fastening it to a short piece of metal or wood, and daily drawing it tight enough to stop the circulation. Tumors of great magnitude may be taken off in this manner; and there is an advantage in removing them in this way, in consequence of no hemorrhage attending the operation. Besides, the patient has less dread of it than excision by the knife. For tumors called wens, see "Wens."

HARDENED SWELLING OF THE ABDOMEN (Tympanites).

Causes—It is sometimes occasioned by dropsy and morbid affections of the liver; at other times by stone in the bladder; frequently by worms; and in one most curious case, reported by Van Swieten, it arose from hemorrhagic effort after suppression of the menses and the hemorrhoidal flux.

It may likewise be induced by poisons, when they occasion flatulence and spasmodic constriction of the bowels.

There is evidently a preternatural distension of the intestines by air, producing loss of tone in the muscular fibres of the part distended; and, from what has been suggested on the process of digestion, it must appear that the accumulation of this air or gas in the stomach or the bowels is to be attributed to some defect either

in quantity or quality of the several fluids, the saliva, pancreatic juice and bile, which are mixed with the aliment to assist in the reduction of it into chyle, and to restrain the progress of fermentation in the feces while they are passing the intestines. But this alone cannot be the proximate cause of the tympanites, for with this must be united spasmodic stricture in some part of the intestines which prevents the escape of wind, and this spasmodic stricture must be occasioned by some irritation in the system.

Symptoms—The symptoms are, elastic distension of the abdomen, not readily yielding to pressure and sounding like a drum, with costiveness and emaciation, but no fluctuation.

In the beginning we observe difficulty of breathing and hollow rumbling of the bowels. Thirst and loss of appetite, pain in the loins and frequency of pulse succeed and wasting follows.

The persons most liable to this disease are chiefly those of relaxed and irritable habits, such as have been debilitated by profuse evacuations, intermittent or typhus fever; patients who have recently suffered by spasmodic and inflammatory affections of the bowels, and particularly women after child-birth.

Treatment—To a pint of strong infusion of spearmint or peppermint, add one-half teaspoonful of ginger. Inject as much of this liquid into the bowels each time as possible, and repeat it two or three times a day, according to the symptoms; the patient should endeavor to retain it for some time, unless it produces an immediate discharge of gas. In connection with this, the abdomen of the patient should be slowly rubbed downward with the hand of an attendant, for several hours in succession, or until the swelling has disappeared, making as much pressure as can be borne, at the same time apply hot fomentations of bran or hops or flaxseed, covering the entire abdomen.

To allay the thirst, give either spearmint, horsemint or ginger. Sometimes the wind may be drawn off by inserting in the rectum a long, gum-elastic tube.

During the disease, the diet should be light, digestible and of a nutritious character; all food which will cause acidity or flatulence should be avoided.

ULCERS.

An ulcer is an injury done to flesh from various causes and from which issues matter, with more or less pain and inflammation. It may arise from any source that occasions inflammation or corrupts the fluids; as fever, scrofula, venereal disease, retention of acrid humors, cold, injuries, etc. It is divided into many different kinds; but this is unnecessary for practical purposes.

Confine with a strong bandage a compress of cloth so that it shall press firmly upon that portion of the cavity from which

the pus or matter comes farthest from the external opening, so as to bring the two sides of the cavity in contact and allow them to heal; leave the opening free for exit of discharging pus.

If ulcers are irritable and painful, apply soft rags or cotton wet in warm water. If they are indolent or inactive, apply cloths wet in cold water, and several folds of dry flannel over them, changing once in six hours. If the ulcers seem to be doing well and the matter is thick and healthy, apply a soft cloth with mutton-tallow spread upon the surface; do not remove it more frequently than once in twenty-four hours, unless the discharge is very great, and then do not wash off the matter from the surface of the sore, as it is nature's dressing.

If the ulcer is foul and the discharge from it smells badly, use carbolic acid and water—six drops of the acid to a pint of soft warm water. Wash the ulcer with it once or twice a day. Should it be on one of the lower extremities, the cure will be expedited by keeping the limb in a horizontal position. When in a healthy condition, the healing process can often be hastened by drawing the edges toward each other by means of straps of adhesive plaster, so as to lessen the extent of surface to be healed over.

In addition to the above treatment, bandages are more or less necessary in all ulcers on the legs, unless absolute rest, with the elevation of the foot above the level of the hips, can be enforced. Laced stockings or elastic stockings are convenient substitutes for the bandage and are more easily applied. In the treatment of ulcers on the leg, as, indeed, on every other part, undeviating cleanliness is essential. The uncleanly habits of many persons, who allow their feet and legs to remain unwashed for weeks together, induce an imperfect vitality of the skin, which favors the formation of ulcers and renders them disagreeable and obstinate in their results. Washing the lower extremities daily is one of the most potent means of preventing and curing the disease and restoring the lost vitality of the parts.

As much open-air exercise should be taken daily as is consistent with the patient's strength; but he should not stand much, or sit with his legs hanging down.

Remedies—1. To ulcers which are irritable, tender and painful, apply a carrot-poultice, prepared as follows: Scrape the root fine and cover with boiling water; thicken with a little corn-meal; renew once a day, or oftener where there is much discharge.

2. The bitter-sweet, as prepared under the title of "Proud-Flesh," is an excellent remedy for ulcers.

3. When neither of the above can readily be procured, the parsnip should be used. In many cases it is not excelled. It is prepared by first boiling and then making it into a poultice.

4. Walnut leaves are very good, when they can be had, and are very highly recommended by all who have employed them. A quantity of them is to be boiled, with a small portion of sugar

added. Cloths are then to be dipped into the liquid and applied to the ulcer, and changed as often as they become dry.

5. One of the best applications to ulcers is Beach's Black Salve.

Olive oil.....1 quart,
Beeswax.....1 ounce.

Melt together; raise mixture nearly to boiling, then add of pulverized red lead twelve ounces; stir constantly. When the oil takes up the lead, the mixture becomes brown or black, then remove from the fire and add eighty grains (four scruples) of camphor.

6. Add one teaspoonful of the tincture of eucalyptus to half a pint of water; apply by means of saturated cloths.

Accessory Treatment—The diet should be nutritious and easy of digestion; fats, acids and liquors must be avoided.

Healthy ulcers secrete pus or matter, of the color and consistency of cream; these should not be molested with frequent washings.

When ulcers are foul and emit a disagreeable smell, mix a small portion of yeast with the poultices which are employed.

Fomentations of hops and poppy-leaves are excellent. Sometimes dry applications will be found to have a better effect than moist, such as sprinkling on common flour or pulverized chalk. These may be used for a few days, in alternation with poultices and fomentations. Do not bandage tightly.

Indolent ulcers, which are almost insensible to the touch, hard, and the discharge thick and of yellowish color, should be treated differently from those of an irritable character. They should first be stimulated, in order to excite a healthy granulation. For this purpose wash, at each time of dressing, with castile-soapsuds, in which a little brandy or other spirits has been added, and carefully dry. Then sprinkle over its surface finely powdered blood-root.

One of the best preparations for these ulcers is wild-indigo root. It is prepared by making a strong decoction and thickening it with powdered elm-bark, or, in the absence of the bark, use corn-meal or starch. If there should be a tendency to mortification, sprinkle the preparation with powdered charcoal and add a portion of yeast. If any fungus or proud flesh appear, sprinkle on the part burnt alum or powdered blood-root.

In addition to these local measures, it will frequently be necessary to use some internal treatment, in ulcers of an inveterate character. For this purpose, the compound sirup of stillingia is very good. It can be procured at all drug stores. Also, burdock, yellow dock or sarsaparilla are useful for the same purpose. Dose, two teaspoonfuls, in a little water, twice a day.

FEVER-SORES.

Remedies—1. The so-called fever-sores are usually treated as other ulcers. A good remedy for their cure is the leaves of the

chickweed (*Stellaria medlia*). Their application should be renewed twice a day.

2. Another very excellent preparation, for the cure of the same, as well as for healing other sores, is red clover blossoms. They are to be made into a decoction, and then reduced by boiling to a thick paste, and applied to the ulcer on a cloth.

3. Apply fresh scraped turnip to the sore, twice a day. It should be renewed oftener in cases where it becomes very offensive. This simple remedy has cured cases of ten and fifteen years' standing.

Fever-Blisters—Touch the blister with a piece of saltpetre, three or four times a day. This will prevent the formation of a sore. One day's use will ordinarily suffice.

HIGH-COLORED AND SCALDING URINE.

Causes—It may arise from various causes; from inflammation of the kidneys, or womb, alcoholic drinks, luxurious diet, excessive venery, etc.

Remedies—This may be readily relieved by drinking freely, every one or two hours, of a tea of goose-grass (*Cleavers*); or of a tea made of marsh-mallow root. A tea made of pumpkin-seed or watermelon-seed is often a speedy cure. Any of these teas may be sweetened with sugar or honey.

In some cases, the pain may become so severe that, in order to relieve it, sitz-baths should be resorted to. In such cases, the bath should be taken as hot as the patient can bear, and he should remain in it for twenty or thirty minutes.

All the drinks employed should be flax-seed or slippery elm water.

RETENTION OF URINE (Retentio Urinæ.)

This is an obstruction to the discharge of the urine. Retention is liable to be confounded with suppression of urine; but in the latter condition the kidneys are the seat of the disease, and do not secrete the urine; in retention, the urine is secreted, but the fault is in the bladder, its sphincter, or in the course of the urethra, in which there may be some cause of obstruction, as stricture, diseased prostate, etc. Suppressions may be easily distinguished from retention, for in the latter disease the bladder is distended with urine, and may be felt at the bottom of the abdomen; while, in suppression, the bladder is empty and can scarcely be felt. If it be deemed necessary to introduce the catheter, the diagnosis will be confirmed; in retention the bladder will be found full, but in suppression empty.

Causes—Retention of the urine may be owing to a paralysis of the bladder; mechanical obstruction at the neck of the bladder, or in the urethral canal; inflammation of the neck of the bladder; injuries to the bladder; irritation of the parts from gravel, or from cantharides taken internally or absorbed from a blister; tumors or enlarged prostate glands.

Remedies—1. In all ordinary cases of this disease, egg-shells are a potent remedy and may be relied on. They are to be parched and pulverized, then given in teaspoonful-doses every hour.

2. Marshmallow-root is a popular remedy for retention of urine. When it cannot be had, use parsley. A tea of these plants is to be drunk freely every hour or two. Relief is usually obtained in a few hours.

3. In some cases of this disease, warm water, injected into the urethra with a syringe, acts like a charm. A copious flow of urine is produced, with subsequent natural discharges at their usual intervals.

4. The old remedy of our grandmothers, a tea of watermelon or pumpkin-seeds should have a place with the others, in the treatment of this disease; for many times it is at hand when no other is, and is often prompt and effective.

5. There may occur sometimes inveterate cases, or those that have been neglected, that will require the use of the instrument called the catheter, to draw off the water from the bladder until a cure can be effected. This will necessitate the attendance of a physician for its accomplishment. In no case should a patient be allowed to go longer than twenty- four hours without a passage of urine, and if he takes much drinks or fluids and perspires but little, twelve or eighteen hours is as long as it is safe to allow him to go without drawing off his urine by means of a catheter. Any physician can perform this operation.

6. A warm hip bath is often of great efficacy in starting the flow of urine, or the sound of falling water poured from a considerable height. The power of the last method is in its suggestiveness.

Accessory Treatment—Warm baths, sitz baths, hot fomentations, bland drinks and injections by the rectum greatly aid the medicines in restoring the functions of the parts, if there be not incurable organic disease. The diet should be sparing, and, in some severe cases, restricted to barley-water, gum-water or other diluents.

Not infrequently the administration of a warm bath, or hot sacks of hops and vinegar, placed over the region of the bladder and changed every few minutes, is attended with speedy relief. This is especially the case with children.

SUPPRESSION OF URINE.

From different causes the urine is liable to be suppressed, either partially or wholly, causing great distress. It may proceed from gravel, inflammation of the bladder, prostate glands, urethra, cold, etc. There is swelling, pain and inflammation of the bladder, with great difficulty of voiding urine, or a complete suppression.

The patient becomes dull and torpid, at length sleepy and perhaps delirious, and at the end of four or five days, in cases of entire suppression, stupor, and perhaps convulsions and death occur, if the disease is not relieved. If a small quantity of urine is secreted, the patient may live for weeks, and either recover or die from coma, as in the cases of complete suppression.

When there is suppression of urine there is generally little or no inclination to urinate, and no sensation of fullness near the region of the bladder, nor is there any fullness in the lower part of the abdomen; and if the catheter is introduced, as it always should be, no urine is obtained.

Remedies—1. Spirits of turpentine will cure this disease, when administered in its early stages. Dose, three or four drops, every two hours, on sugar.

2. A common remedy among many practitioners is a tea of marshmallow-root. It is to be drank freely, every half-hour or hour.

3. Another, which is relied on with much confidence in more aggravated cases, is the following: Take a wineglassful of the best Holland gin; add to it a tumbler of spearmint-tea and two teaspoonfuls of spirits of nitre; sweeten with honey and drink the whole during the space of two hours. The same potion should be repeated every two hours until relief is afforded.

4. Light attacks of this disease readily yield to large draughts of warm lemonade.

5. Apply a poultice of raw onions over the region of the kidneys and lower parts of the bowels. One poultice will afford relief and produce the desired result.

6. Strong teas made from the common parsley-root; watermelon or pumpkin-seeds, are each good remedies for this disease.

7. A tea made from the buds and bark of the sycamore tree generally acts promptly in this disease.

Accessory Treatment—Place hot fomentations, as hops and vinegar, tansy or hoarhound, on the loins; or instead of these, in some cases, the warm sitz-bath.

Injecting sweet oil, or even warm milk and water, frequently up the urethra, will often afford relief, especially if the suppression has been occasioned by a small piece of gravel which has stuck in the canal. Injecting tepid water into the bladder itself, in similar

cases by a syringe, will also afford great relief. If there is fever, or pain and uneasiness in the small of the back, consult "Inflammation of the Kidneys."

VACCINATION---COW-POX.

This disease is not natural to man, but to the cow. It is similar to small pox; and when artificially introduced into the human system is as nearly as possible, without being absolutely, protective against small pox.

In vaccinating, it is generally a bad practice to use matter passed from arm to arm, as serious consequences are apt, sometimes, to follow. Other diseases, besides the vaccine disease, can pass by inoculation into the system. Of the diseases which may be thus communicated, we may mention certain forms of skin-affections; as the itch, scrofula and syphilis. It is, therefore, highly important that the matter employed should be perfectly pure. For this purpose, it should be obtained from the cow. The matter is first to be inoculated into the bag of the cow. This forms a pustule or scab, and is free from all taint or impurities whatsoever, and should be used in all cases where it is desired to vaccinate a person for the prevention of small pox. The matter thus obtained, can be found in the principal drug-stores and at the offices of some physicians, or can now be had from any one of a number of vaccine farms at a very trifling expense.

Vaccine should be administered by a careful and skillful practitioner, who should exercise his judgment so as to determine when the constitution of the child is in the strongest and healthiest state for this purpose.

Care should be taken to protect the arms from friction, that the sores may not be irritated and the scabs torn off. Occasionally, a poultice is necessary if inflammation or suppuration is excessive; or the application of finely powdered starch or corn-meal.

The resident surgeon of a hospital states that in the course of his large experience he found that, when small-pox attacked persons who had not been vaccinated, it killed 33 per cent. of them—that is, one in every three died; but that when vaccination had been performed, the death-rate of those attacked by the disease fell to one in fifteen. He also found that the protective power of vaccination was in proportion to the manner in which it had been performed; thus, one permanent cicatrix, or scar, after the operation, gives a mortality from the disease of nearly eight in the hundred; two scars, of rather more than four per cent.; three scars, less than two per cent.; and if four scars, not one in a hundred dies when attacked by the disease. This is a most important practical point to remember; if only one indifferent cicatrix remain after the

operation, such persons, taking small-pox in after life, die at the rate of twelve in the one hundred; but if four or more cicatrices remain, only one in two hundred will die of small-pox.

Re-vaccination should take place at the age of puberty; the great systematic changes which occur at this time of life rendering it generally necessary. Persons at this period, especially if they are about to change their place of abode, should be examined, and if they have only one scar, or if that is imperfect, or if there is no scar at all, they should be re-vaccinated.

WATER-BRASH (Pyrosis).

Symptoms—Eructations of an acid or tasteless watery fluid, sometimes in considerable quantities. It seems to arise from closure of the esophagus by muscular spasm, so that the trickling saliva is prevented from passing into the stomach, and ascends into the mouth without any effort. It is often accompanied with pain, and is sometimes a symptom of organic disease of the stomach or liver, but is commonly due to chronic gastric catarrh. When arising from indigestion it is generally due to the too exclusive use of a vegetable diet, or to indigestible food; it is of common occurrence among the poorly fed.

Remedies—1. Common table-salt is a valuable remedy in this difficulty. Less than one-half a teaspoonful should be dissolved in water, and the dose repeated twice a day.

2. Ten drops of the water of ammonia will quiet the distress and check the discharge.

3. For the purpose of breaking up the discharge, give one grain of sub-nitrate of bismuth, one hour before each meal, and on retiring at night.

4. When water-brash is caused by indigestible food, add five drops of the tincture of nux vomica to a tumblerful of water. Mix well. Dose, two teaspoonfuls three times a day, on an empty stomach.

5. In obstinate cases of this disease Dr. Krukenburg's prescription, is "When the patient is hungry, let him eat buttermilk; and when he is thirsty, let him drink buttermilk." Fresh milk is not so well borne, as it curdles in the stomach.

Accessory Treatment—The diet should consist of easily digested, nutritious food, soups, broths, lean meat, potatoes and graham-bread, if it agrees with the patient. Pork, or any fat meat, should not be used.

WARTS.

Remedies—1. Dissolve a small quantity of washing-soda in as much water as it will hold in solution, wash the warts with

this for a minute or two, and let them dry without wiping. Keep the water in a bottle, and repeat the washing often. It will remove the largest warts.

2. Caustic is an effectual though troublesome application. The juice of the common annual spurge-plant is an efficacious remedy; as is the bark of the willow tree, burnt to ashes, mixed with vinegar and applied. The juice of the marigold is also another excellent means.

3. Steep in vinegar the inner rind of a lemon for twenty-four hours, and apply it to the wart. The lemon must not remain on more than three hours, and should be applied fresh every day. To apply acetic acid with a camel's hair brush is still better. Either is regarded as a certain cure for warts.

WORMS (Entozoa).

The three most common varieties of worms are, the thread-worm (pin-worm or maw-worm), the round-worm and the tape-worm. The first two are more common, the tape-worm being very rare in children under three years of age.

Thread-worms are from half to three-quarters of an inch in length, white and thread-like, moving rapidly. They inhabit the rectum chiefly, and cause great irritation.

The term "maw-worm" is sometimes applied to them, from the irritation caused in the stomach by a reflex action. They do not exist in infants fed at the breast, unless other food, especially starch-food, is also given, but are often met with in older children, and occasionally in adults. The symptoms to which this variety give rise are itching or irritation about the anus, especially troublesome in the evening, depraved or irregular appetite, offensive breath, picking of the nose, straining at stool, disturbed sleep and more or less general restlessness. The local irritation excited may be very considerable, extend to contiguous parts and occasion a mucous or bloody discharge from the vagina, and even operate as a cause of masturbation. The same result may occur from direct migration of the worms from the anal to the vaginal or urethral orifice. The frequent but ineffectual desire to go to stool may occasion straining and falling of the bowels, effects which may continue after the expulsion of the worms. When the presence of thread-worms is suspected, they may often be found on examination of the stools, or crawling about the radiating folds of the anus after the patient gets warm in bed.

The *round-worm* is very similar to the common earth-worm, but a paler color, sometimes almost white. It is of variable length, from six to fifteen inches, inhabits chiefly the small intestines, where it feeds on the chyle, but not infrequently passes into the

stomach and is vomited, or downwards into the great bowel and is ejected with the evacuations. It has been seen in the gall-bladder duct; has visited the wind-pipe; and been found in the air-passages, causing death by strangulation. When existing in large numbers, the worms cause much irritation, and are occasionally passed in bunches or balls rolled together. It seldom exists alone, and is said to be most common in ill-fed children between the ages of three and ten years. The chief symptoms are, pains and swelling of the abdomen, depraved appetite, fetid breath, slimy stools, straining, itching of the anus, and sometimes chronic diarrhea, most troublesome at night, with offensive, scanty, thin stools, much straining, and often falling out of the bowel. Nervous symptoms are also common; pallid countenance, dilated pupils, dizziness, disturbed sleep with grinding of teeth, convulsions, faintness, etc. These symptoms may, however, be due, in part at least, to the general functional derangement which favors the production of the worm and not alone to direct irritation.

The *tape-worm* is white, jointed, flattened, varies in length from a few feet to many yards, has its abiding-place in the small intestines, and usually exists alone. It has been said that if a joint of it be left in the bowel, it will become a perfect worm. The symptoms produced by the tape-worm are not often well marked, and it is usually unsuspected till joints are passed in the evacuations; frequently, however, there are sensations of weight or gnawing in the abdomen, often with enlargement about the navel. The appetite is usually excessive, but at the same time the nutritive functions are so imperfect that there is considerable and progressive wasting. There is often itching of the nose and anus, lassitude, and sometimes cramps in the extremities.

Causes—Our knowledge of the means by which these worms get access to the intestinal canal is as yet imperfect. The thread-worm effects an entrance into the human body, with vegetable food or water, whilst in an immature condition. Unfiltered, impure water is no doubt the medium by which the round-worm is introduced. The revelations of the microscope prove that water often contains animalcules or their eggs which, though extremely minute, may give rise in the human intestine to a thing of life. They may also come from eating imperfectly washed vegetables, raw or under-cooked meat, etc. Flesh infested with the *cysticercus* or the trichina is the ordinary source from which the tape-worm is derived. Pigs are very liable to be so infested, and in rabbits it is exceedingly common, very few of these animals being found altogether free from this parasite.

The theory of the spontaneous generation of intestinal worms is opposed to the investigations of the most scientific naturalists of the present day. Food in a semi-assimilated condition, with the presence of mucus in the intestines, forms a nest favorable to the development of these parasites; but there has been no evidence of

a single example of spontaneous development even of the simplest form of living beings, except through the instrumentality of a previously existing principle.

The unhealthy condition of the lining of the digestive tube that prevails in this disease is highly favorable to their development.

General Symptoms—The existence of worms is usually preceded and accompanied by an unhealthy condition of the mucous lining of the intestines, in which a large quantity of tenacious, slimy mucus is secreted, that interferes with the various processes concerned in digestion, and at the same time forms a suitable nest for intestinal worms, in which they develop rapidly in proportion to the quantity of mucus secreted. Intestinal worms require thick mucus both for their bed and nourishment. The clear recognition of this fact is of great importance; for when the alimentary canal is brought into a healthy condition there is no home for worms, and they soon cease to infest the patient.

This condition of the bowels is associated with a coated tongue, varying in degree according to the extent of the mucus secreted, with remarkable distinctness of pimples at the sides of the tongue. These pimples are seen as large, round or more commonly oval spots, seldom elevated, and varying in color from pale-red to deep crimson; the depth of color being in proportion to the degree of irritability of the digestive organs. If vomiting and diarrhea supervene, their color becomes bright-red, and they then project slightly above the surface, peering through the thick coating of yellow fur with which the tongue, in such cases, is usually covered. Although the appearance of the tongue thus described is not diagnostic of worms, yet it indicates a condition of the digestive organs in which worms are very likely to be found, and when it is noticed, worms should always be inquired for. When the tongue is seen to have a slightly slimy look, especially about the center, to be covered with a thin coating of greyish, transparent fur, and to have the pimples at the sides large, oval, not elevated, but pinkish red and usually distinct, worms are seldom absent.

As a result of this condition of the intestines, the function of nutrition becomes impaired and the patient loses flesh, while the abdomen becomes hard and swollen. The face is puffy and pale, the skin greyish, with a lead-colored semicircle under the eyelids; the pupils are dilated; there is itching of the nose and anus and occasional straining; the bowels may be confined, with constant, ineffectual efforts, or there may be attacks of diarrhea, with great straining, the stools being dark, slimy and offensive; the breath is disagreeable, especially in the morning, and there is sometimes dribbling of saliva during sleep. The appetite is varied, often ravenous, and sometimes the child refuses food altogether. Discharges of mucus are not infrequent from the rectum, and in girls

from the vagina. Sometimes the urine is passed with difficulty or pain, it being usually whitish or milky.

Other disordered conditions of a nervous character are restlessness, starting during sleep, grinding of the teeth, a dry, short, irritative or spasmodic cough, sighing, hiccough, and in children of a refined, nervous temperament, convulsions.

The only certain proof of the presence of worms is the detection of the creatures themselves, or their eggs, in the stools or matters vomited.

Thread Worms—Thread-worms often migrate from the rectum into the vagina of little girls, preferring the night for this purpose; they may even migrate from the child affected to others sleeping in the same bed. In this manner worms are infectious, and an entire family, where parents and children occupy the same bed, as they too often do, become infested with thread-worms.

Remedies—Injections are useful as means for expelling thread-worms, as they inhabit the rectum and lower bowel; half a pint of water, in which a teaspoonful of common salt has been dissolved, repeated two or three times, will generally suffice. The injection should be copious, administered in the evening at bed-time, and when the bowel is empty, so that the salt water may find ready access to the various ramifications of the bowel where the parasites hide. Afterwards, a simple cold or tepid injection should be used regularly two or three times a week for one or two months, to wash away the slime and mucus in which the eggs exist.

An old Italian remedy, and one regarded by the people of that country as infallible is: To half a gill of whisky or brandy, bruise and add a piece of the root of garlic the size of a hulled walnut. Let it stand twenty-four hours before using. Dose, for a child, one teaspoonful, and repeat for three mornings in succession.

An injection of one tablespoonful of sweet-oil once a day will generally expel these worms.

Long, Round-Worm—1. Inject a teaspoonful of linseed-oil with a little warm water, and repeat every other day. Ten days are sufficient to rid the child of these worms.

2. Spearmint is a very powerful vermifuge. It is prepared as follows:

Take, of
Spearmint ..... ½ ounce.
Hot water ..... 1 pint.

Infuse fifteen minutes and strain. Dose, for an adult, two tablespoonfuls; for a child one year old, one teaspoonful, three times a day.

Many a doctor's bill might be saved and many a child relieved of worms by the use of the following infallible remedy. Give four to ten drops, according to age, of oil of wormseed on sugar twice a day for three or four days; follow with large dose castor oil. If the seeds are used, pulverize them.

Mix with honey or sirup, equal parts, and give a teaspoonful three times a day.

4. Take of pink-root, one ounce; senna and manna, of each, half an ounce. Steep in a quart of boiling water. Dose, from a teaspoonful to two tablespoonfuls, according to age, once a day; and, if the case seems to be urgent, twice a day. Dose, of the powdered root of the pink, for an adult, one or two teaspoonfuls; for children, five to twenty grains, according to age. See "Table of Doses for Children."

5. Santonine (the active principle of worm-seed) is now regarded as an efficient preparation for the expulsion of worms. Dose, one-half grain, for three nights in succession, followed, on the fourth morning, with a teaspoonful of castor oil for a child, and a tablespoonful for an adult. This medicine can be procured at all drug stores.

6. Giving, twice a day, injections of a decoction of cabbage leaves, has recently been recommended as efficacious in both the round and tape worm.

Tape-Worm—1. Take, of the bark of the pomegranate root, two ounces; water, two pints; boil to one and a half pints. Dose, half a gill, every hour. Four or five doses are generally sufficient to expel the worm.

2. Take half a pint of pumpkin seeds to a pint and a half of water; steep to a pint. Drink during the day, and repeat two or three days in succession, then follow with a cathartic, and the expulsion of the worm will often follow.

3. Give fifteen or twenty drops of the oil of male fern at night, and the same in the morning. Two or three days after the second dose, give an active cathartic. Castor oil and turpentine will answer; two tablespoonfuls of the former and one teaspoonful of the latter. If the worm is dead, it will pass away without any inpleasant symptoms. Should the medicine fail in expelling the worm, the doses, somewhat increased, are to be repeated. If the powdered root is given, the dose is two teaspoonfuls, in the same way as the oil.

4. The sweet fern is said to be equally as effective in expelling these worms as the male fern. Drink a pint of the decoction each day, or take one or two tablespoonfuls of the powder, to be followed on the fifth day with a purge.

5. Ten to fifteen drops of spirits of turpentine, two or three times a day, followed by a dose of castor oil, has frequently been used with success.

It should be remembered that all remedies for this species of worm should be taken in the morning, and on an empty stomach, and that but little food should be taken until the medicine operates on the bowels.

Accessory Treatment—The propagation of the most common varieties of worms, the round and thread worm, may be pre-

vented by the simple application of lard or oil around the anus of the patient. It has been observed that light and air are necessary to the propagation of some varieties of intestinal worms in horses and other animals, and Mr. Haserick states that the female holds on or grasps the mucous membrane within the sphincter ani, and then discharges its eggs around the anus; in a few hours these are hatched and make their way into the rectum. He has found the application of lard around the anus destroys the eggs, and that by renewing the application two or three times a day for a week, the surface is completely protected, and the egg has no nest for development; consequently, as the worm is short-lived, in the space of eight days the animal is free from these parasites. Encouraged by his success with animals, this gentleman recommends similar measures in the case of children, and with the prospect of equal success. Dr. Woodvine, of Boston, confirms Mr. Haserick's theory. "After many attempts," he states, "I succeeded, on the 15th, 16th and 17th of January, 1869, in satisfying myself that the method by which the thread-worm propagates its species is by depositing the egg outside of the sphincter ani and around the edge of the anus, where, in the space of a few hours, the worms are hatched, and make their way into the rectum. In order to ascertain if the eggs are thus deposited, I directed the parents of the child afflicted with the worms, a few minutes after a paroxysm of itching and pricking pain in the rectum had subsided, to take a piece of damp, black silk, and, wiping the anus of the child with it, fold it, and send it to me. To the naked eye nothing appeared on the silk more than a little mucus. This I placed in a microscopic cell, and under a one-fifth objective found that, on several occasions, I had succeeded in obtaining large numbers of the eggs, thus confirming the observation of Mr. Haserick." Dr. Hills and Dr. Grosvenor have advised this treatment in many cases, with the best result in every instance.

Diet, etc.—To correct the excessive and morbid intestinal secretion, considerable changes of diet are generally necessary. The food should be taken only at regular hours, and be selected with special reference to its digestibility; it may include properly cooked animal food, mutton, beef, fowl, also white fish. Cakes, pastry, sweetmeats, sweet-made dishes, potatoes, butter, veal and pork in any form, should be forbidden. Salt, as a condiment, may be taken with the food.

For feeble children troubled with worms, the following scale of diet is recommended by Dr. Eustice Smith, of London, to be given in four separate meals in the course of the day:

First Meal—Fresh milk diluted with a third part of lime-water; a small slice of toast, or of dry, stale bread.

Second Meal—A small mutton-chop, or a slice of roast-beef or mutton, without fat; dry toast or stale bread.

Third Meal—A cup of beef-tea or mutton-broth, free from grease; the yolk of a lightly boiled egg; dry toast.

Fourth Meal (*if necessary*)—The same as the first. It is not always easy to persuade children to submit readily to the deprivation of starchy food, for which, and especially for potatoes, there is often in these cases a great craving. So long, however, as the slimy appearance of the tongue, before described, continues to be observed, the above diet should, if possible, be adhered to. When potatoes are once more allowed, they must be well boiled, and should be afterwards carefully mashed. Steaming is generally the best method of cooking potatoes. Gravy may be poured over them before they are eaten. In cases where the appetite is lost, and there is disgust for food, children often show an especial reluctance to take meat. A small bird, as a lark or a snipe, will, however, often tempt them, when all others fail. In general, three meals are better than four; but whichever arrangement is adopted, no food should be allowed between meals.

General Measures—The general hygienic management of children should be conformed to the best principles; children should be bathed in the morning, and afterwards rubbed with a large towel or sheet till the whole skin is in a glow. An occasional warm bath at night is advantageous by aiding the healthy action of the skin. Open-air exercise should be taken daily, and when improvement has taken place, change of air to the coast or to a bracing country is desirable, if only for a short time. Change of air tends to perfect and render permanent the treatment recommended.

Prevention of Worms—Open waters should be avoided either for drink or for use in the preparation of food, into which the carcases of animals are liable to have been thrown, or into which worm-eggs may be washed by rain or other agencies, or to which even dogs or other animals have access. All suspected water should be previously boiled, distilled or well filtered. Decomposing pieces of meat should be destroyed by fire; if thrown to dogs or allowed to accumulate on the ground, or even buried, worms are propagated and human health and life endangered. Raw or underdone meat, of all kinds, should be carefully avoided.

Constipation must not exist. With it, a cure of worms will in many instances be impossible.

When a child is troubled with worms, the food may contain an extra quantity of salt, but this excess is to be discontinued when it is rid of the worms.

Worm-troubles are not so common as generally supposed. Almost every irritation or abnormal condition of a child is attributed by the parents and others to the presence of worms, and the little sufferer is often made worse by the use of medicines.

In no case, however, ought the child to be purged and medicated for worms unless it is quite positive that such are present.

Rarely do they exist without some evidence being shown by discharges; hence these should be carefully examined.

Large sums of money are annually spent in the way of doctors' bills and for patent worm-medicines, which are usually worse than thrown away.

Worms, in young children, are frequently owing to the general deficiency of salt in their food. Abundance of sugar will always be found there, but frequently no salt, or a mere trifle. Experience has fully demonstrated that, when food is sweetened with salt, and only a little sugar is added, to give it taste, the best of results are affected, preventing worms as well as many other disorders of children.

WEN, OR SEBACEOUS TUMOR.

This is a tumor composed of fatty matter, and inclosed in a sac beneath the skin, occurring from obstruction of the secretory ducts.

These tumors occur on various parts of the surface of the body, are smooth, non-elastic, pendulous and movable; they slowly increase without pain, often to a very great size.

Remedies—1. Take the yolk of eggs; beat up, and add as much fine salt as the number you have will dissolve, and apply it, as a plaster to the wen, every twelve hours. It cures, without much pain or any inconvenience.

2. Prick or cut the wen with a needle or sharp knife, just sufficient to cause it to bleed, then wet it thoroughly with a strong solution of copperas water, once a day. "This, followed for four weeks, cured a man who had six or eight of them, some of them on the head as large as a hen's egg."—*Dr. Chase.*

The usual method, however, of disposing of wens, is to have them cut out by a surgeon.

Kernels, or Small Glandular Swellings—Mix a little turpentine with cayenne, and place it upon any hard tumor or kernel. This will "scatter," or disperse it. Tincture of camphor will also effect the same purpose. A cloth is to be applied and kept saturated with it.

WHITE SWELLING—HIP-DISEASE.

This is a very inveterate and painful disease, and is usually seated on some of the joints of the body; principally the hip, knee, ankle and elbow. As the name implies, the skin remains white, even in great inflammation. Sometimes it is rather mild in its character, at other times exceedingly painful; and the seat of the pain is in the periosteum or covering of the bone, which in most

cases becomes diseased and scales off. It is peculiar to children and those of scrofulous habits.

Causes—A taint of the blood, cold, injuries, etc.

Symptoms—In the commencement, there is a very severe pain felt deep in the joint, and when the child or person moves the pain becomes intolerable. As it progresses there is swelling, but no redness; a shining whiteness, with hardness or callus. It slowly increases till the swelling is very considerable and the distress great, and suppuration ensues. There is a discharge of matter from a number of openings. The limb wastes, becomes bent, and when in the hip, osseous matter fills up the joint and slowly dislocates the head of the bone, either causing permanent dislocation or stiffness; fleshy excrescences shoot out from the ulcers, showing that the bone is affected, and in the process of time there are generally small pieces of bone detached. The patient is very thin and pale, with much constitutional disturbance, hectic fever, etc.

Remedies—1. Dr. Howard, of Philadelphia, says that the root of bear's foot, is a sure cure for white swelling. The following is his mode of preparing it: Boil the root in any kind of oil or lard, and make it into an ointment. Apply it to the swollen parts three times a day; after each bathing, place a flannel cloth over the swelling, when, having a flat-iron heated to a suitable temperature, it should be ironed by passing the iron quickly over the flannel for a short time. The ironing not only facilitates the absorption of the ointment, but also relaxes the parts and stimulates the languid vessels to more vigorous action, thus assisting in the removal of the disease.

This method of removing white swelling was kept a secret and employed with uniform success by a woman for several years. It has effected cures in many instances, after all other means had been tried in vain. One case is related of a very severe character, in which the swelling had extended from the hip to the ankle, that was cured with this remedy in one month.

2. A valuable remedy for this disease to be used internally, is the compound sirup of stillingia, which can be had at all drug stores, to which should be added ten grains of iodide of potash to the pint; after which give one tablespoonful three times a day.

If the disease progresses, gathers and breaks, poultices of elm-bark and others of an emollient nature are to be used. It may be dressed as other ulcers. See "Ulcers," treated on another page.

Accessory Treatment—Pain arising from this disease may be instantly eased thus: Take the white of an egg and beat it up with two tablespoonfuls of water; rub the part affected frequently, but gently, with the finger.

For stiff joints and contracted sinews, put a handful of chamomile flowers in a bottle, add sufficient sweet oil to cover them, and place in the sun three or four days. Apply this to the affected part three or four times a day, and dry it in by means of a hot iron.

YAWS (Framboesia).

Yaws is a disease peculiar to the negroes, and is said to be imported from Africa. It is propagated by contagion. It occasionally attacks white people, but they are not so liable to it as the blacks. Like the small pox, it only affects the person once during life.

Symptoms—This disease appears first in the form of small pimples on different parts of the body, generally on the face, neck and arms. These pustules gradually enlarge, and terminate in small blisters, sometimes half an inch in diameter, and discharge a thin, whitish fluid, which gradually forms into a scab.

Accompanying the appearance of the eruption, there are always more or less headache, pains in the limbs, general debility, loss of appetite, and sometimes chills alternating with fever. The period during which the eruption lasts may vary from a few weeks to several months, new crops of pustules appearing often as fast as the previous ones have disappeared. Sometimes, from some of the larger pustules, red fungous excrescences will appear, resembling red raspberries.

Remedies—During the first, or the eruptive stage of this disease, bathe the surface of the body with warm saleratus or lye-water, once a day, and give freely of catnip, sage or pennyroyal-tea. If the patient is costive, give a teaspoonful, three times a day, of cascara cordial, or injections of warm water. It will also be well to put the patient in a warm bath about every other day, for half an hour at a time. He should also take exercise every day, but avoid exposure to cold. The diet should be light and purely vegetable.

When the scabs begin to form, give a half teacupful of strong tea, made of equal parts of burdock-root and sassafras, three times a day; or, if these cannot be had, give a tea of yellow parilla and yaw (*Stillingia*), or any two of them. The dandelion-root makes a good tea for this purpose.

If ulcers remain, wash them, once or twice a day, and dress with some good healing salve.

If there is much inflammation and soreness, apply at night an elm-bark poultice. Should ulcers form on the bottoms of the feet, bathe them often in warm water, and treat them as common ulcers.

This treatment will usually be sufficient to cure this disease.

Prof. King gives the following course of treatment in the second stage: "In the second stage, when the eruptions begin to dry off, give the compound sirup of sarsaparilla or the compound sirup of stillingia, in doses of two teaspoonfuls three times a day; and this should be continued until all the scabs fall off. Should a foul ulcer remain, it may frequently be washed with the tincture of muriate of iron. The soles of the feet are apt to confine the discharge, when the yaws attack this part, thereby producing extensive ulceration of the feet.

OVARY DISEASES

Hernia—Descent of the ovary into the inguinal canal. The chief symptom is pain, increased on pressure, and at the menstrual period. A special truss should be worn after the ovary has been replaced.

Prolapse—Downward displacement without displacement of the tubes and uterus may result from prolonged congestion, inflammation, stretching of the ligaments, or violent strain.

The symptoms are constant and severe pain, which is increased by movement and at the menstrual period, nausea and indigestion, headache, and nervous disturbances. Examination reveals enlargement, tenderness, and the abnormal position of the ovary. In uncomplicated cases, the ovary may be restored to its proper position by directing the patient to assume the knee-chest posture for ten minutes two or three times daily. Pelvic congestion will require the use of saline laxatives, hot vaginal douches, the application of iodine to the cervix and vaginal vaults. Diseased ovaries should be removed and uterine displacements should be corrected.

Acute Inflammation of the Ovary—The symptoms are pain and tenderness in the ovarion region, nausea, vomiting, rise of temperature, and rapid pulse. The treatment consists in rest in bed, hot vaginal douches, free purgation, hot fomentations over the lower abdomen, and removal of the diseased structures if the symptoms grow worse.

Treatment—Add a tablespoonful of salt to a quart of warm water and use as an injection. It should be used as hot as it can conveniently be borne. If it does not afford relief, which it generally does, repeat the operation in four or five hours. Borax instead of salt is preferred by some.

FALLOPIAN TUBES

Affections

Inflammation of the Fallopian Tubes may be acute or chronic, and is usually due to gonorrhea, septic infection, subinvolution, or uterine displacements.

The Symptoms of the acute form are pain in the ovarian region, rise of temperature, increased pulse-rate, and tenderness, fulness, and enlargement upon vaginal examination. The symptoms of the chronic form are pain, worse upon exercise, or exertion of any kind. The uterus is usually displaced backward, and the enlarged and indurated tube may be found behind or beside it.

The Treatment of the acute form consists in rest in bed, free purgation with Rochelle salts, hot vaginal douches, and hot applications to the abdomen. The chronic form may be treated during the menstrual period by rest in bed, free purgation, hot vaginal douches, local applications of iodine to the cervix and vaginal vaults, and glycerin tampons. If these measures fail, removal of the tube and ovary and replacing the retroverted uterus is necessary.

DIVISION SIX.

WOMAN IN HEALTH AND DISEASE.

DEVELOPMENT OF WOMANHOOD.

When a girl has reached that condition when she is capable of child-bearing, we say she has reached the age of puberty; we cease to speak of her thereafter as a girl, and begin to designate her as a young woman. The changes that take place are constitutional, and their approach is indicated by most interesting and important developments. These appear in every aspect, both mental and physical; there is fuller development of the form, more roundness, symmetry and grace of motion, while new life animates the countenance. Specifically is noticed the enlargement of the pelvis, which now takes on more and more its distinctive sexual character; the breasts develop and add charm to the general contour of form; their relations and sympathy with the womb are recognized; the voice acquires greater fullness and softness; the hair has a stronger and more luxuriant growth; the neck, chest and arms sympathize in the general awakening of the whole being, and more fullness of outline and freshness of complexion, with distinctive feminine ways, mark the budding into young womanhood.

This combination of attractions which marks the epoch of puberty is, no doubt, designed to subserve the purpose of alluring the opposite sex, and so securing the great object for which the female was created—the reproduction of the species.

Corresponding with the external changes coincident with puberty are internal ones, occurring especially in the ovaries and womb, which now become fully developed, both as to size and activity. In short, the woman has now, as a rule, acquired the power to conceive.

The mind, too, at this period grows rapidly; the mental capacity enlarges, the imagination becomes more vivid, and the nervous system exhibits a heightened sensibility.

Maternal Instruction—As puberty advances, no mother should neglect to teach her daughter to expect the change which is about to take place, so that the first appearance of the menstrual flow may neither be arrested by the alarm naturally felt at something hitherto inexperienced or unknown, nor by the dangerous applications to which in her ignorance she may otherwise secretly

resort. Some young women view the development of this function with such disgust that they expose themselves carelessly or purposely during the period to cold and wet, or use cold baths or other means of suppression, and thus finally bring on disordered menstruation and permanent ill health; contracting diseases which are constant reminders of a mother's neglect, and which the innocent, ignorant girl bears through all her future life of suffering and useless regrets. The mistakes here committed are rarely, if ever, remedied. Consumption or some other form of disease equally fatal, claims the unfortunate victim.

MENSTRUATION.

The menstrual function, which is variously termed menses, periods, catamenia or courses, is one of the most important functions of the female organization, and constitutes a real monthly crisis. It consists of the exudation of a sanguineous fluid, chiefly from the body of the womb, the average quantity being from four to six ounces at each period, and is attended by a congested state of the womb, ovaries and contiguous organs. The course of the menses recurs, in the majority of instances, when regular, every twenty-eighth day, the very day on which it had appeared four weeks previously. This occurring every lunar month, from which fact the ancients called it the Moon's disease. The duration of a menstrual period varies in different persons, the most common and normal being about four days.

The menstrual fluid is eliminated from the uterine vessels, and is considered by some as a true secretion, and by others as a discharge of pure blood. The latter opinion is the correct one, for it is blood, and not a mere secretion, although prevented from coagulating by being blended with the acid secretion of the womb and vagina.

Uses of Menstruation—Two ends seem to be especially secured by this function: 1st, the relief of the general system, by the discharge of the superabundant blood which, during pregnancy, is appropriated to the formation and growth of the fetus; 2nd, a vicarious satisfaction of the sexual instinct, thus shielding female chastity. The modern doctrine, however, is that menstruation takes place when the ovum, not having been impregnated, undergoes degeneration, and is cast off with an escape of blood from the congested womb in sufficient quantity to relieve the congestion.

First Menstruation—In this country the most common time for the occurrence of the first menstruation is from the fourteenth to the sixteenth year, although the age is liable to considerable variations. In hot climates it commences at an earlier, and in cold climates at a more advanced age. The occurrence of menstrua-

tion in this country one or two, or even three years earlier than the fourteenth year, or as much later than the sixteenth, is not sufficiently uncommon to justify any medical interference when the health is otherwise good. This variation as to time or age is attributed to physical development, which is also dependent upon surrounding circumstances, such as heredity, exercise, atmosphere, habits of life, etc., etc. Menstruation commences earlier in cities and large towns than in the country. It also occurs in the daughters of the rich, who have every comfort and luxury, everything which enervates and relaxes, or excites, at least nine months before it does in those of the industrious classes of the community in the most comfortable circumstances, and full fourteen months, on the average, before it appears in the poorest classes.

It is satisfactorily established that in every country and climate the period of the first menstruation may be retarded, in very many cases, much beyond the average age, often without producing ill-health or other inconvenience. Probably the most successful mode of managing young ladies is to bring them as far toward the perfection of womanhood as possible before the appearance of the menses, at least until the fourteenth or fifteenth year. With this object in view, the following suggestions are offered:

Preventing too Early Menstruation—The use of hot baths, especially with the addition of mustard, should be avoided; also indulgence in the use of hot, spiced and stimulating food and drinks; living in overheated or badly ventilated rooms; excessive dancing, novel-reading, too much sitting and late hours: such habits and indulgences tend to occasion precocious, frequent, copious or irregular menstruation. The education, including the general habits of our present social condition, the insane ambition and desire of parents to force children prematurely into ladies and gentlemen when they should be playing with dolls or marbles and enjoying the pure invigorating air of field and wood, and drinking in at every breath present health and the foundation of future happiness, too frequently give such a pressure of training that the successive stages of life are hurried through, and the tastes and peculiarities of one period are anticipated in that which should precede it. Thus, mere boys in age and physical development become young men and girls young ladies before they leave school. Such is the precocity which the habits and fashions of the present generation engender.

On the other hand, regular, healthy occupation of both the body and the mind; the daily use of baths, or sponging over the entire surface of the body; free exercise in the open air; cool, well ventilated rooms; plain, digestible diet, and abstinence from hot tea, coffee and alcoholic stimulants, tend to the healthy and highest development of the female form and constitution.

Sudden Menstruation—It is not always, however, that this function advances gradually and in harmony with the changes described. Menstruation may occur for the first time prematurely,

and be caused by a severe fall, violent jumping, great mental emotion, etc. In such cases there may be a considerable flow, amounting in some instances to absolute flooding, and lasting for several days. It is important that these facts should be known by mothers, so that in sudden and extreme instances they may maintain their own composure and inspire it in others.

Remedies—If this should result from mental emotion, add three drops of the tincture of aconite-root to half a tumblerful of water, and give a teaspoonful every two hours. If occasioned by injury or severe physical exertion, arnica in the same quantity, and in the same doses, together with rest in the lying posture, light covering, a cool and well ventilated apartment and cool drinks, will often be sufficient to modify the discharge; but if they do not, they will at least suitably precede the application of the more detailed treatment suggested under "Excessive Menstruation."

In other cases, the occurrence of the menses may be long delayed, and the delay attended with excessive languor, drowsiness, periodic sickness, fretfulness, irritability or frequent change of temper, violent pain in the head or along the spine and in the region of the bowels, a feeling of weight or fullness in the pelvic region, with bearing-down or dragging sensation, tenderness or heat: these may alternate with feverish reaction, with nervous symptoms, or even with spasms. The local symptoms and their periodicity are the most characteristic.

In some females, the establishment of menstruation may be accompanied by derangements of the venous, digestive or lymphatic systems; and unless successfully treated at this period, these disturbances may be present, in a greater or less degree, during every subsequent recurrence of the menstrual discharge during the entire period of subsequent life.

If the menstrual function, as it is also termed, be well and healthily established, new and vigorous impulses will be given to every nerve and organ, and the entire system will acquire superior forces for resisting influences adverse to health. But carelessness or mock modesty may render this period extremely dangerous in the propagation of new forms of disease, or in the development of any latent germs of disorder which have existed from birth, as an inheritance from a mother suffering from some violation of nature's laws. Hence, the first appearance of the menses should be looked for with some care and anxiety on the part of the mother or guardian, and when it is long retarded, the general health disturbed, and the remedies suggested in this work appear inoperative in aiding the desired change, professional advice should be sought without delay. False delicacy and improper treatment have needlessly undermined the health of thousands.

DELAY AND SUPPRESSION OF THE MENSES.

Delay of the menses, when the age is reached at which they should be expected, need give no uneasiness. The delay involves neither danger nor suffering, and should be left to nature to deal with. The only danger is that the imperfectly developed organs may be permanently injured by the improper use of forcing medicines. Suppressed menses, on the other hand, are of frequent occurence and require prompt and careful treatment.

(Amenorrhea).

The term *Amenorrhea* is used to describe absence of the menstrual discharge, and is usually considered under three divisions, namely: 1st., *Emansio mensium*, a delay of the menses, although the person has attained the proper age; 2nd, *Suppressio mensium*, in which they have appeared, but as the consequence of a cold or some other cause are arrested; and, 3d, *Retentio mensium*, in which they accumulate in the uterus and vagina, from what is technically termed *imperforate hymen*; or more frequently, from occlusion of the vagina by the healing of ulcers, the consequence of sloughing after difficult labors. This condition usually requires surgical measures for its relief.

Causes—Suppression may arise from a physiological cause, such as pregnancy; frequently, however, it is the consequence of weakness from sedentary, in-door occupations, combined with want of fresh air and sufficient rest; excessive loss of blood; chronic and acute diseases; sexual excesses and mechanical obstructions; or it may occur suddenly during the flow, from the exposure to cold and damp, such as getting the feet wet, sitting on the ground, eating ices, violent emotions—anger, terror, fright, etc.,—or from any other cause which abruptly shocks the system. Suppression, for two or three periods, without pregnancy, sometimes occurs after marriage, simply as the consequence of excessive excitement. Wearing thin-soled shoes is a fruitful source of the decay of female beauty and the decline of female health.

Another prolific cause of this difficulty, as well as many other diseases of females, is tight wearing apparel, which is scarcely second, in its injurious effects, to that arch-enemy of health, intemperance. This is the one cause of the insignificantly small and compressed waists, which the perverted tastes of this wicked and unregenerate age regard as the *beau ideal* of female beauty, the personification of grace and the perfection of feminine loveliness. What an exhibition of human folly and idiotic blindness. What a marvel of inconsistency and presumption is the vain attempt of woman to render more beautiful and attractive that "form divine," the conception of which received its immaculate impress when the "morning stars sang together, and all the sons of God shouted for joy."

Symptoms—When all the external signs of womanhood have

appeared and menstruation does not occur, but there is aching fullness and heaviness of the head, bleeding from the nose, palpitation of the heart, shortness of breath on slight exertion, weariness of the limbs, loss of color in the cheeks, general languor, pains in the small of the back, in the lower part of the bowels and down the inside of the thighs—these may be regarded as so many indications that nature is seeking to establish this important function.

Remedies—1. For this difficulty, there are three remedies, either of which is readily obtained, and will usually give prompt relief. They are the vervain-root, the garden-beet and the black cohosh. The first, the vervain, is found growing plentifully almost everywhere, or may be procured at any drug-store. Half a teacupful of the decoction of it is to be drunk, three or four times a day. When the patient is subject to this difficulty, she should commence its use a few days before the time the menses are expected to return. When a decoction of the root of the cohosh is used, it is employed in a like manner as to dose, etc., as the vervain. The tincture is given in doses of a teaspoonful, three times a day. The beet is used in tincture, the dose of which is a teaspoonful, three times a day. Either of the above remedies is efficacious, and patients can use the one which is the most convenient for them to obtain.

The beatin will bring on menstruation in most difficult cases of suppression. A pregnant woman should not use it. The preparation is made from the beet and is harmless.

See page 491 for its use.

Grated horse-radish.....½ teacupful.
Good gin.....1 pint.

Mix, and give for a dose, from one-half to a tablespoonful, twice a day, and this difficulty will soon be relieved.

4. Borax is now used in the treatment of this complaint. It is a new remedy and a successful one. It also facilitates labor in childbirth. The dose is from one-fourth to half a teaspoonful, three times a day.

5. When this difficulty originates from cold, "there is nothing," says Dr. Bundy, "that I have ever used that equals the hair-capped moss, known also as birds' wheat. A strong infusion of it is to be freely and frequently taken. In some cases the continuation of this and smart-weed, in equal parts, answers a better purpose than if given alone. These infusions should be drunk as warm as possible, and the feet placed in warm water for thirty minutes, at bed-time."

Accessory Treatment—The cause of the suppression and the co-existing impairment of the general health should be carefully inquired into, and, if possible, removed. All physical or mental depression, undue excitement, night-air, late hours, highly seasoned and stimulating food and drink, should be avoided. The meals should be taken with regularity, and under pleasant and cheerful influences, the stomach never overloaded, the food simple, nourish-

ing, not too great a variety at one meal, and only such as has been uniformly found easy of digestion. The drink should be milk and water, cocoa, black tea in moderation and pure water. Green tea, coffee and other stimulating drinks should be omitted, unless prescribed by competent authority. Out-of-door exercise, useful employment and agreeable company or books—in short, every means should be adopted that is calculated to give constitutional vigor. While hoping for a return of the menstrual discharge, the exercise of patience is sometimes necessary, as the general health is often greatly improved before this crowning evidence of cure is obtained.

PAINFUL MENSTRUATION (Dysmenorrhea).

Causes—These are chiefly as follows: A congested condition of the secretory vessels of the uterus, disease of the ovaries, inveterate constipation, and a contracted canal of the neck of the womb. In obstinate constipation, the rectum may become so distended with impacted fecal matter as by its pressure on the neck of the womb to render the escape of the menstrual fluid difficult and painful. Ovarian irritation, sometimes induced by self-abuse, is not an infrequent cause. Persons of a neuralgic, hysteric or rheumatic tendency generally suffer much pain at the menstrual period.

Symptoms—Severe bearing-down pains in the uterine region, resembling the pains of labor and occurring in paroxysms; aching in the small of the back, loins, pelvis, and sometimes extending to the limbs; headache, flushed cheeks, hurried breathing, palpitation; cutting and pressing pains in the abdomen. The pain sometimes precedes the flow several hours, or even days, and continues for a longer or shorter period, and may cease or continue when the discharge is established. At other times the pain continues till a *membranous* substance is expelled, when a healthy discharge may take place, or it may entirely cease. In some cases the breasts, the counterparts of the female generative organs, become extremely sensitive and painful. Patients subject to this affection are generally troubled with confined bowels, frequent headaches, from congestion in the inter-monthly period, and are often sterile from abortion which occurs at the menstrual cycle.

Remedies—1. In many cases of this difficulty a spirit-vapor bath affords immediate relief. Directions for preparing and using this bath will be found under the head of "Vapor Bath." In mild cases the warm hip-bath will be found equally effective.

2. Another efficacious means is, when the menstrual pains are severe, or the patient is more than usually weak, put across the small of the back, over the kidneys and reaching to the loins, a girdle of flax-seed poultice, well sprinkled with pulverized camphor.

3. A new remedy for this difficulty is the high cranberry (*Viburnum opulus*), which comes to us very highly recommended, and we apprehend that it will accomplish all that is claimed for it. A tincture of the bark is to be taken, in three or four-drop doses, twice a day, commencing a week previously to the expected period. When the pain sets in give it every two hours. It is equally useful for the severe false pains which sometimes precede labor. It is of great value for after-pains, and a dose should be given after every pain. For the mode of preparing tinctures, see "Tinctures." A tea of the bark may be as effective as the tincture, but it has not been so thoroughly tested.

4. Take, of

Grated horse-radish..... ½ teacupful.
Good gin..... 1 pint.

Mix. Dose, from one-half to a tablespoonful, three times a day. Ladies who have used this remedy assert that they have never found anything equal to it. It is also valuable for suppressed menstruation.

Accessory Treatment—Attention must be directed to those general rules for the recovery of health which are prominently dwelt upon in this book, and form the basis of the correct treatment of disease of every nature. Daily, active exercise in the open air; regular and early hours; plain, wholesome diet; abstinence from wine, coffee and green tea; and the avoidance of influences that disturb the mind and temper, are important accessories in the treatment.

During the intervals between menstruation, the cold or warm bath should be used, the one the patient finds to be best adapted to her. During the periods, the bath should be tepid, and, in any case, vigorous friction should follow.

All sexual intercourse must be positively avoided for two or three days, at least, preceding the appearance of each menstrual period, and every unnatural habit that may have been insidiously acquired must be utterly abandoned. As palliatives, during the period, hot bottles or flannels wrung out of hot water, and applied to the lower part of the abdomen, or warm hip-baths in which the patient may remain for twenty or thirty minutes, or an enema of as hot water as the patient can comfortably bear, generally give effectual relief to the distressing aching and weariness that at times accompany this monthly function. Rest, both just before and during the period, is also an important addition to the successful treatment of this complaint. Attention must be given to the dress. No other cause is so powerful in the production of this difficulty as the pressure of corsets and skirt-strings and the dragging weight of the skirts on the abdomen. By these means the womb is displaced and the spine is weakened. *Tight clothing is destroying the health, and carrying to premature graves thousands and tens of thousands annually.*

The following directions, in this affection, are highly recommended by a medical author: "For painful menstruation and low circulation, we prescribe magnetic manipulations. If you cannot avail yourself of this treatment, then, as a substitute, wear a fur or nice soft wool garment below your waist, enveloping the entire abdomen and the hips, which should be put on and worn constantly about three days before the flow commences, and taken off two or three days subsequent to the cessation. If your feet and body are painfully cold after retiring for the night, your best remedy is very long, fur stockings, and mittens of the same, with neatly fitting wristlets. Wear these only at night. Fur soles within your shoes during the day, or moccasins. Lamb-skins, with wool next to your body, will answer in place of certain kinds of fur. The fur should always be worn with the flesh-side inward."

When the painful menstruation is caused by a wrong position of the womb, this must first be cured before it can be removed. When it is owing to a narrowing of the neck of the womb, this must be overcome by the careful employment of bougies. They can be procured at all drug stores. Or, instead of bougies, tents of various sizes may be made of twine, or silk cord, etc., and, after dipping them in the following preparation, be introduced into the canal of the neck of the womb, and be retained there by plugging up the vagina with soft pieces of old muslin, etc.

Take of extract of belladonna ten grains, powdered borax forty grains, wax half an ounce; melt the wax, rub in the extract and borax, and when cool dip in the tent; when cold, but soft so as not to stick to the fingers, smooth it by passing the fingers over it.

In the introduction of these tents great care must be observed, and if they cause any unpleasant symptoms they must be removed, and not be introduced again until all such symptoms have passed away. An intelligent female is just as capable of introducing these tents as a physician. They should vary in size from that of a knitting-needle to that of a goose quill, and about an inch and a half in length, always beginning with the smallest first, and in every five or ten days increasing the size. A piece of soft wood may be whittled down to the size of the little finger, and a hole be made in one end in which to fit the tent. Pass one or two fingers of the left hand up to the mouth of the womb, and then with the other hand, by means of the stick, and using the fingers of the left hand as a guide, carry the tent to the mouth of the womb, and slowly pass it in. A piece of thread may be previously fastened to the lower end of the tent, by which to remove it, when necessary, from the womb

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EXCESSIVE MENSTRUATION (Mennorrhagia).

Causes—Whatever produces too great determination of blood to the womb may cause this disease; as too much exercise, strains,

injuries, violent passions of the mind, check of perspiration, abortion, difficult or tedious labors, and debility arising from any cause, such as drinking freely of warm, enervating drinks, tea and coffee, want of exercise and too frequent sexual indulgence.

Symptoms—An immoderate flow of the menses is often preceded by headache, giddiness, shortness of breath, and is afterward attended with pains in the back and loins, some degree of thirst, universal heat, and a frequent, strong, hard pulse; other times, paleness of visage, chilliness, unusual fatigue in exercise, a hurried respiration on the slightest effort, pains in the back on remaining any length of time in an erect posture, and coldness of the extremities, together with loss of appetite, indigestion, and a long train of nervous complaints.

It is difficult to determine, except approximately, the quantity of discharge that should occur at each monthly period; but it varies considerably according to constitution, temperament, habits and climate. Robust, plethoric females, who eat abundantly and drink wine, can bear a comparatively large discharge without inconvenience; whilst delicate patients, of relaxed constitution, would quickly suffer seriously from excessive discharges. The monthly loss, however, should never be such as to occasion debility and general ill-health. There is a deep-rooted and most dangerous notion current that, however great the discharge may be, if it occur regularly, it is in perfect accordance with the economy of nature. When a medical man directs the parent's attention to the debility and ill-health following an habitually too copious flow, he frequently receives the answer, "She is always so." The fact of a girl being always so is the very reason for adopting such measures as may, if possible, prevent her ever being so.

Remedies—1. The prince's feather, or amaranth, cultivated in gardens for its beautiful red color, is a celebrated remedy for this difficulty, and has often cured when all others had failed. A decoction is made from the leaves and drunk freely.

2. Another good preparation for this purpose is to take equal parts of alum and nitre, say a teaspoonful of each, divided into six equal parts and taken every two to four hours. A decoction of blackberry-root is likewise good.

3. In very mild cases the tincture of cinnamon, given in teaspoonful-doses every hour or two, in a wineglassful of sweetened water, will give relief.

4. A strong infusion of sumach-berries, taken in doses of two or three tablespoonfuls, every three hours, is probably not surpassed for this difficulty.

5. Take one part of charcoal, well powdered, and six parts of powdered white sugar; that is, in the proportion of one teaspoonful of charcoal to six of sugar, and rub them thoroughly together. In the absence of a druggist's mortar in which to prepare or rub them, spend twenty or thirty minutes in grinding and mixing them

together, with a case knife, on a table or smooth surface. Then, of this, divide one teaspoonful into four equal parts, and give one of these parts for a dose, and repeat every hour. In reference to this and the following remedy, Dr. Frost says, "I have used them both in my practice and can highly recommend them."

6. A powder called bebeerine, which can be procured at drug stores. Dose, one-half a grain every three hours.

Accessory Treatment—The patient should spare herself, and maintain a recumbent posture a great deal for a few days before and especially during the discharge; household duties, particularly lifting or reaching anything high, should be avoided; also warm beverages, even of black tea, and excessive eating and the use of stimulating food and beverages. Cold water is the most suitable drink; injections of cold, or even iced water up the bowel are useful, especially if the patient is costive or troubled with piles; cool vaginal injections, with a female syringe, or the application of hot-water spinal bags to the small of the back for half an hour at a time, tend to relieve a congested state of the womb. In very severe cases, cold, wet cloths suddenly applied over the abdomen so as to produce a shock, light covering and the horizontal posture, are absolutely necessary; the hips should be as high or higher than the shoulders, so as to relieve the uterus of the column of blood, and the patient be kept cool, quiet and free from excitement. So long as the tendency to this disease continues, every kind of excitement should be restricted or avoided altogether.

There are cases sometimes when it may be necessary to plug the vagina. A sponge or handkerchief will do; but common cotton wadding, with the backing on it, makes the best plug. Whatever is used should be freely smeared with glycerine, and have attached to it a piece of tape or twine to facilitate removal. Care should be taken to fill up and distend the vagina with the plug, otherwise the object of using it will be defeated by the oozing out of the blood at the sides. The plug should not remain more than twenty-four hours; if necessary it may be replaced by another.

CHANGE OF LIFE—CRITICAL AGE.

The cessation of the menses commonly occurs in this country between the fortieth and fiftieth years, generally about the forty-fifth; but, like the first appearance, its termination varies in different women, and is in subordination to the temperament, constitution, climate and habits of the individual. There is usually some relation between the periods of the first and last menstruation, for the cessation occurs at a late period when the first appearance was wanting in precociousness.

Symptoms—Whilst the change is in progress, there is commonly more or less functional disturbance of the general health,

the nervous system especially manifesting various changes, such as vertigo, syncope, headache, flushes of heat, urinary difficulties, pains in the back, extending down the thighs, with creeping sensations, heat in the lower part of the abdomen, occasional swelling of the extremities, itching of the private parts, mental irritability, restlessness, culminating sometimes, especially in patients of a decidedly nervous temperament, in more profound nervous disorders.

Sometimes menstruation ceases abruptly. The monthly period may be arrested by cold, fright or some illness. Earlier in life the suppression would have been followed by a return of menstruation after the removal of the cause; but now nature adopts this opportunity to terminate the function.

Gradual termination is, however, the more frequent, and is attended with the least disturbance of health. In gradual extinction, one period is missed, and then there is a return; a longer time elapses, and there is, perhaps, an excessive flow; afterwards some months may pass away without any re-appearance; then there may be a scanty discharge, followed, perhaps, by flooding, and at last the discharge becomes so scanty and so slightly colored as scarcely to attract notice, and then finally disappears. The reproductive powers cease with the termination of the function.

At this critical period there is not infrequently enlargement of the abdomen, which, though it may occur at earlier periods of life, is due to causes peculiar to this. It may arise from a highly sensitive and enfeebled state of the stomach consequent on sympathy with the deranged functions of the womb. Hence there is indigestion, which does not prove amenable to ordinary remedies, but must be treated in view of the primary cause. Food and wind accumulate, causing painful distention of the abdomen, and attended with loss of appetite, depression of spirits, constipation, drowsiness and general weakness. Scanty or excessive discharge is also an accompaniment. Fibrous tumors of the womb are not uncommon, and by their mechanical pressure may cause painful defecation, constipation, piles, diarrhea, frequent and painful urination and varicose veins.

The general opinion that the change of life is a perilous period for patients who enter it in a state of disease is, we believe, correct; more especially if any womb or constitutional affection exists, for this is generally aggravated, the change prolonged, and the cessation retarded.

Causes of Disordered Function—Previous disease of the womb; exhausting labors; anxieties arising from the rearing of a family, etc.; these trials tend to depress the forces, so that when the final efforts which close the sexual life have to be made, the nervous system gives way in one shape or another, and various aberrations ensue.

The old notion that menstruation acts as a purifying process is no doubt, to some extent, correct; hence when this function ceases

the blood is liable to become charged with deleterious products. This is further liable to be aggravated by the fact that at the "change" the nervous distribution is reversed, and indigestion results from disordered or obstructed secretion or excretion. Too little open air exercise increases the evil by favoring torpor of the lungs, the bowels, the liver, the kidneys; and the skin acting imperfectly, permits the products of waste tissues and of mal-assimilated food to accumulate in the blood.

Remedies—To control excessive flooding, give the fluid extract of the New England hemlock (*Pinus Canadensis*), in twenty-drop doses, every half hour or hour, until the hemorrhage ceases. This remedy can be had at all drug stores. Bromide of potash in thirty grain doses, combined with five drop doses of tincture of Indian hemp, is exceedingly useful.

Accessory Treatment—A light and nourishing, but not an extra diet should be allowed; wine and malt liquors are generally unsuitable, for an accustomed discharge is about to cease or has already ceased, and the system is liable to oppression and the patient to complaints of weakness; but this weakness is generally sensational rather than real. If, to remove the languor and inactivity present, stimulants and generous diet be allowed, some important organs will most likely suffer. Small quantities of spirits are sometimes prescribed to remove the distressing sensations commonly felt in this period, and are generally taken by the patient with great satisfaction; but their good effects are only temporary, while their continued use is often most mischievous. Veal, pork, salt-meat, pastry and made dishes should be avoided; vegetables in season, well cooked, with beef, mutton, whitefish or fresh game may be taken in moderation once a day. Cocoa or cold water forms the best drink for breakfast, and one small cup of tea for the evening meal. The sleeping-room should be cool and well ventilated, and the patient should sleep on a mattress. The changes of the weather should be guarded against by appropriate dress, and exercise taken daily in the open air.

REPRODUCTION.

Marriage—The question of the marriage of unsuitable persons, or of marriage at an unsuitable age, is often either disregarded or viewed from too narrow a stand-point, as if it only concerned the individuals forming the alliance. Our responsibility, however, imposes on us the duty of enforcing the truth that the health, happiness and material greatness of future generations are involved in such marriages. No one but the physiologist, the profound student of nature, and the physician, the ones who see human nature in all, even in its darkest aspects, can fully appreciate the subject, or accurately trace its workings in society. The several points here

only briefly alluded to are of pressing importance and should be seriously pondered in their bearings, by persons contemplating marriage and by parents and guardians.

Marriageable Age—From twenty to twenty-five years of age, when nature has perfected and completed the organic structures, and all stand forth as a harmonious healthy whole, may be stated as the most suitable time of life for contracting marriage on the part of women. Although the function of menstruation commences from the fourteenth to the sixteenth year, yet the female constitution is not sufficiently formed and matured till twenty or twenty-one years of age to permit of marriage without risk of injury to health and comfort. Climate has much to do in perfecting the human frame. In the tropics, women mature quite early in life, much earlier than in the temperate zone, where some exceptions may exist to this in persons who have acquired at about nineteen that physical and mental perfection which the majority of persons in this country only attain some years later. On the other hand, too late marriages frequently entail much discomfort, and the children of such parents are very sickly and die prematurely. But these points are more fully and separately considered further on.

Precocious Marriage—Physiology clearly teaches that both animals and plants must acquire full development before they are capable of reproducing their species in the highest and most vigorous condition. Too early marriage often results in arrest of development, a shattered constitution, and generally impaired health in the mother; such marriages are also generally less fertile, and the children who are the product of them are weak, puny and have an increased rate of mortality. Further, premature marriage, by anticipating the demands of nature, increases the sufferings and dangers of child-birth. Anatomical facts may also be briefly cited to confirm the correctness of our conclusions. The perfect ossification of the pelvic bones and their complete union to one another do not usually take place till after twenty years of age; nor is it till about this period that the pelvis has fully assumed the form and shape and distinctive sexual features so admirably suited for the functions of child-bearing. It is well known that the pelvis of the two sexes differ but little till puberty; but at that period the female pelvis begins to assume its striking characteristics; its cavity becomes capacious and broad in both its diameters, and the inlet and outlet also enlarge. These and other characteristics, so necessary for maternity, are not fully developed till after that maturity of growth, the process of years, which only commences about the time of puberty. "When I am consulted," writes the celebrated M. Joulin, "as to the propriety of a marriage for subjects who are too young, I am accustomed to respond to the parents that they should not marry their daughter until for a year at least after her stature had ceased to increase. This is the epoch I fix for the full physiological maturity." The early exercise of the sexual functions of the lower

animals does not disprove our argument. The life of the sheep, for example, is much briefer, its office much more material, and its sexual propensities are therefore manifested at a much earlier age.

Marriage, moreover, if suitable and happy, lengthens life. The relative influence marriage and celibacy on the duration of life has been ascertained; and the result is that the mortality is considerably less, both among men and women, in the married state, than among the unmarried and widowed. This opinion has been frequently controverted; and it has been affirmed that longevity, instead of being a consequence of marriage, is simply a co-relation of it; that they are concomitant results of the same cause, viz.: constitutional vigor. Where the reproductive instincts are strong the surplus vital energy is great, and the organization is likely to last. This may be true, but we nevertheless think that well-assorted marriage lengthens life.

In thus recording our matured opinion on this subject, we may be excused detailing, in a domestic work, the varied kinds of evidence on which it is based. Let the inquiring mind look around and somewhat beneath the surface of society, carefully examine what will thus come to view, and proof will be ample and varied that deferment of marriage many years beyond the period indicated is not always consistent with physical and moral well-being. We may be permitted to say,in this age of literature much speculation has been indulged in by pretentious writers who have no claim and are entirely unfitted to pronounce opinions on so vital a subject. Marriage is a holy estate and the most important epoch in the history of two of God's creatures, and such being the fact, it should never be entered upon unless after mature reflection and thorough acquaintance. The entire round of life should be one of perfect congeniality, a thorough reciprocity of thought, sentiment and idea with also a similarity in physical organism. All things being equal, the marriage relation may be entered upon when the physical organism has arrived at maturity, nor is it prudent before that period. When once that state is entered, then arises those physiological questions relating to the good of the race—its living present and its great future, for it is one of God's truths "we live not for ourselves alone." We live in the next generation through our children; therefore, the theory of reproduction is one of more than passing thought, and to bring this great subject properly and comprehensively before the minds of the present generation, the greatest writers of the world have enlisted the aid of science and scientific labor and research to advance knowledge by the establishment of facts, and make them so plain that "he who runs may read."

Disproportionate Ages—A considerable disproportion between the ages of the husband and wife is to be avoided. When circumstances are favorable to such an arrangement, there should not be more than five to eight years difference between the ages of

the man and the woman, though there are exceptions to this rule, the husband being the senior.

Ill Health a Contra-Indication—A little reflection will convince any one of the disastrous consequences likely to spring from the marriage of unhealthy persons. The fact cannot be disputed, though appreciable with difficulty, that the natural and special dispositions of the individual descend to him in a certain measure from his origin, and that parents transmit to their children such and such moral propensities, just as they do such and such physical temperament or such and such features. Hereditary transmission enters into the moral as well as into the physical order of the world. Disease, then, as well as peculiarity of character, may be transmitted from parents to children. This is no mere theoretical statement, but a truth based on practical observations a hundred times verified, and it should convey a most impressive lesson. If, for example, the consumptive young woman marries, she becomes a mother—for the consumptives are generally prolific—and indelibly imprints her infirmity on her offspring, while she exposes herself to perils of childbirth a hundred-fold heightened in such a disease. The observant medical practitioner only, can trace effects to their causes, can gauge the suffering and bitter disappointment which result from such marriages, and should be consulted before marriages are arranged. It will be obvious that unless the fountain whence much physical evil flows—hereditary taint—be itself purified, nothing can effectually check common maladies which destroy happiness, health and life. So long as a reproducing agent is constantly at work, imprinting at the time of impregnation the elements of disease on countless numbers of children, nothing can prevent the multiplication of diseases and premature death.

Conception.—Impregnation depends upon the physical and mental condition of both parents at the period of intercourse. It is true that education and care may improve an imperfectly organized embryo, but it is also true that the qualities imparted to the germ at impregnation cling to the individual through life. The essential conditions, therefore, for the production of healthy and beautiful children, is good health and happy temperaments on the part of both parents at the time of connection. They should be free from fatigue and should observe correct rules, some of which are given in this book. "At this moment" says Dr. Hufeland, an eminent German writer, "it is of the utmost importance that a sensation of power, of ardent passion and a mind cheerful and free from care should invite to the act on both sides. *There are occasionally women so constituted that it is impossible for them to give birth to living children. Often, too, women are warned by their physicians that to conceive and bear another child would mean almost certain death. To all such living as husband and wife, the following is an absolutely harmless and sure means of preventing*

any difficulty, namely, to abstain from all sexual intercourse during the entire fruitful period of each month. Medicines, nostrums or so-called treatments advertised or sold as preventives of conception are uniformly injurious and dangerous as well as unreliable. They should never be used under any circumstances. The use of such medicines has produced thousands of chronic invalids.

It is held that the time most favorable to conception is that following the cessation of the menstrual discharge. Women then have a much greater aptitude to conceive. Everything seems admirably prepared at this period for the reproduction of the species. The explanation of this may be here briefly summarized. At every menstrual period an ovum or egg is matured and expelled from its Graafian vesicle, and a woman is only liable to impregnation on its meeting and blending with the necessary fecundating principle of the man. The time occupied by the passage of the ovum from the ovary to the uterus or womb is not accurately known, but varies from five or six to eight or more days, differing, probably, in different persons and in different conditions of health. When the passage of the ovum or egg is completed, the liability to pregnancy is supposed to cease till after the next menstruation. An entirely different doctrine, however, to that above enunciated is now beginning to gain ground, and we will briefly state this new theory: Modern research tends to prove that a developing ovum or growing embryo does not belong to a menstrual period just past, but rather to one immediately prevented by fecundation. In short, menstruation is now considered to be a degenerative process, a kind of fatty metamorphosis or change of form similar to that which takes place at the end of pregnancy, and its occurrence proves that the ovum has already perished. Hence, according to this doctrine, the time most favorable to conception is the few days preceding the monthly period.

Birth Marks—Some doubt has been expressed as to whether impressions made upon the mother, by fright or otherwise, affect the unborn child. Arguments have been employed to show, on physiological grounds, that the fetus cannot be influenced. But facts are stronger than arguments. We might quote numerous instances, some occurring within our own observation, in which most unquestionably congenital deformity could be accounted for only by impressions received by the mother during pregnancy. Any strong, striking impressions, not necessarily the result of fright or terror, may affect the child. We therefore counsel women who are pregnant to so fortify their constitutions by good habits that they may escape the nervous condition which is susceptible to impressions; to avoid the risk of being struck with what is disagreeable and repulsive, and to surround themselves with pleasant associations and objects of grace and beauty. If a child unborn is affected by what is repulsive, it may also be susceptible to what is attractive. All persons cannot choose their circumstances and

associations, nor can all avoid the risk of meeting with what is disagreeable; "no caution guards us from surprise." But it is possible to all to avoid what is enervating and to adopt that which is strengthening to the constitution.

Many believe that a great desire for any special article of food during pregnancy will have the effect, if not procured, of causing a mark on the child. The best plan is to have all reasonable desires gratified as soon as possible. The husband should do all that is in his power to meet his wife's wishes and make her as comfortable as possible. If this require sacrifice of time and means, let it be made promptly and cheerfully.

Many women cannot be too strongly cautioned against very gross mistakes so often made. *We have shown in this book the dangerous and often fatal means women employ in their endeavors to produce miscarriage and prevent conception. It is only the practitioner who knows how numerous the cases are of women who either destroy their lives or their health for life by this means.*

HOW TO RECOGNIZE PREGNANCY.

The signs of pregnancy vary considerably in different women, both as to their nature and the time of occurrence. The inquiry as to the existence of pregnancy is often one of great importance and anxiety, and we therefore place before the reader the most characteristic signs and symptoms to which this condition gives rise. In estimating the conclusiveness of these signs reference must be had to their number and importance, the previous condition of the woman, and any accidental causes which might tend to produce them. Only four of the following signs can be considered as certain, and these only when clearly made out: they are—the sounds of the fetal heart, the movements of the child felt by another, fluctuation and ballottement. The other signs are probable ones; probability, however, almost rising into certainty in some cases and at certain periods of gestations.

1. Absence of Menstruation—One of the first circumstances which leads a lady to think herself pregnant is the arrest of the usual monthly discharge. If the suppression of the menses occur in a healthy female, who had before been regular, and has not been exposed to cold or wet, or any other accidental cause likely to influence the menses, and especially if at the second and third period the menses are still absent, pregnancy may be suspected. This sign will be much more conclusive if there are added to it other symptoms indicative of pregnancy, such as those described further on.

But although this is one of the earliest signs of pregnancy, still no certain conclusion can be arrived at from it, inasmuch as the

menstrual functions may be suppressed from causes altogether distinct from pregnancy, such as mountain-air, a change of habits, a sea-voyage, etc.; or conception may occur before menstruation had begun, or immediately after ceasing to nurse and before the function has had time to recur.

It therefore follows that, though the absence of menstruation is of considerable value as evidence of pregnancy, it cannot, in itself, be regarded as an absolute sign.

2. Morning-Sickness—Generally, in from two to six weeks, sometimes immediately after conception, ladies suffer more or less from nausea, sometimes vomiting, on first rising, probably from the uterine vessels being then more congested, and hence the disorder termed morning-sickness. Occasionally these symptoms are so severe and persistent as to impair very seriously the health of the patient; on the other hand, some patients do not experience sickness at all.

In consequence of its intimate nervous connection with all parts of the body, the stomach often acts sympathetically in comparatively trifling derangements. Cerebral excitement, nervous irritation, affections of the bowels, kidneys, liver, diet, dress, exercise, sexual indulgence, etc., are all capable of exciting abnormal action in the stomach resembling that which attends pregnancy. As an isolated sign of pregnancy, therefore, this is one of but limited importance. It may be absent altogether, occur at unusual times, or take unusual forms, but when it is combined with other symptoms described in this chapter, occurs at the usual time, and there is no apparent cause for it, such as indigestion, the tongue being clean and the appetite and general health continue good in spite of the nausea, it furnishes an important link in that chain of evidence which indicates the pregnant condition. The treatment of this condition is described further on.

3. Enlargement of the Breasts—The examination of the breasts furnishes an experienced observer, acquainted with the general anatomy of the glands, with valuable data on which to found an opinion touching the existence of pregnancy. Generally, in about six or eight weeks after conception, often earlier, there occurs a sensation of fullness, with throbbing and tingling pain in the breasts, accompanied by their enlargement. They become larger, firmer, and feel knotty, and after a time a milky fluid may be secreted. But these symptoms cannot alone be relied upon as evidence of pregnancy, since irritation of the utero-genital apparatus, suppressed menstruation, uterine tumors, or even, in some females, the monthly discharge, may give rise to them. A temporary enlargement, simply consequent on marriage, is sometimes observable, without conception. Enlargement of the breasts may also be due to fatty deposit; but in this case other parts of the body will show a proportionate increase of the fatty material. The true character of the enlargement is easily recognized by the

touch of the experienced finger; that from fatty enlargement is soft and uniform, but that from pregnancy is hard and knotty, and the lobules of the gland may be felt beneath the skin, arranged in a regular manner around the nipple. Enlargement from chronic disease is perhaps less likely to lead to an erroneous conclusion, as one breast only is involved, and that but partially.

4. Darkening of the Areola Around the Nipple—In the virgin state the color of the nipple and areola is usually but a shade deeper than that of the skin generally; but in about six or eight weeks after conception the delicate, pink-colored circle around the nipples becomes several shades darker, the circle increasing in extent and in depth of color as pregnancy progresses. This change is so strongly marked in primiparæ, or in pregnancy with the first child, as to afford a good sign of gestation. It is, however, rendered of less general value from the fact that with the first pregnancy the dark color becomes permanent, and is, therefore, but little changed. With the darkening of the color of the areola, the nipples and surrounding integuments become swollen, puffy and moist, secreting a fluid which stains the linen; and the veins beneath the skin become more visible. Prominent points, or glandular follicles, varying in number from twelve to twenty, project from the sixteenth to the eighth of an inch, immediately around the base of the nipple. These changes are often well marked, but not always. The darkening of the areola is less marked in women of light complexion; and something resembling it, as also enlargement of the mammary gland, is said to be present when the uterus, or womb, is distended from other causes than pregnancy.

Alterations in the size and appearance of the breasts, the two signs just referred to, afford to the educated hand and eye of the practitioner valuable evidence. It should also be noted that an examination of them is easily made, and for various reasons more readily conceded than one involving the vagina and abdomen.

5. Milk in the Breasts—This sign, considered very conclusive of pregnancy, is often unreliable. Women who have borne children sometimes continue to secrete milk for a long time, even for years. In such cases this sign is of little value. Milk in the breasts also occurs in other conditions of the system besides pregnancy, and even with females who have never borne children.

6. Enlargement of the Abdomen—After impregnation there is an increased afflux of blood towards the womb, the tissues of which gradually expand, imparting a feeling of weight, fullness and sensitiveness in the utero-genital organs.

The gradual enlargement of the womb furnishes a tolerably accurate guide to the period of pregnancy, by the height which it attains in the abdomen. In about two months the intestines are somewhat elevated, and by the end of the third month the enlargement may be perceived. At the fourth month the womb rises out of the pelvis in the form of a hard, round tumor, and then gradu-

ally enlarges the whole abdomen. It reaches the *umbilicus* (navel) at the sixth month, and is highest at the ninth, when it reaches the ensiform cartilage, and impedes the descent of the diaphragm. During the last month it sinks a little, probably from some diminution of *liquor amnii*.

The sensation conveyed to the hand by the pregnant uterus is very different from that of the abdomen distended by fluid or flatus. In the former case it is firm, elastic and well defined, and the movements of the fetus may be felt by the practiced hand; but in the latter there is an absence of firmness and elasticity, and the tumor is not defined. On reaching the umbilicus, the uterus pushes it forward, so that at about the sixth month it is more prominent than is natural, and afterwards it protrudes somewhat beyond the surrounding skin.

Enlargement of the abdomen, as a sign of pregnancy, is liable to variation; the parts may be distended by tympanitis or fecal accumulations in the intestines, or by ovarian dropsy, or the uterus may be enlarged by air, fluid or worms. In many cases the abdomen even becomes flatter at first, from the sinking of the impregnated uterus in the pelvis, attended, perhaps, with a slight retraction of the navel.

7. Quickening—In popular language this term is applied to the mother's perception of the first movements of the fetus, on the incorrect assumption that it was not alive from the very moment of conception. Quickening may be briefly explained thus: As soon as the uterus has become too large to remain in the pelvis, it rises into the abdomen, sometimes suddenly, causing faintness and sickness. After this the movements of the child, pressing directly upon the sensitive walls of the abdomen, are felt. If any doubt exist as to the date of conception, four months and a half from the date of quickening may be reckoned as a tolerably safe guide to the time of labor.

This sign of pregnancy is by no means a reliable one, unless the movements are certainly felt by another person, as the woman herself may be deceived by wind in the intestines, or by her own imagination; for women who think themselves pregnant often assert that they plainly feel the motion of the child, persisting in such statement until the lapse of time convinces them of their error. On the other hand, cases occasionally occur in which no motion of the child is perceived by the mother from the beginning to the close of pregnancy.

8. Fluctuation—As early as the second or third month pregnancy can often be detected with certainty by this test. The practiced touch of the physician alone can be trusted to make the test valuable. Holding the uterus steady with the left hand, an examination with two fingers of the right discovers the *os uteri*, or mouth of the womb, closed, the womb more or less enlarged, and by pressure or percussion a sense of fluctuation or perceptible

movement of fluid is communicated. The fluctuation is a most important sign, giving reliable evidence in a majority of cases. After the second month the fluctuation is more perceptible, but it may be recognized by the sixth or seventh week by a careful examination.

9. Ballottement—After a few weeks the uterus or womb will be found lower than usual, heavier, and its mouth more circular and nearer closed; but afterwards it becomes higher, harder to reach, and its neck is shortened. If the woman be placed on her knees and a push given with the finger, ballottement, or the floating of the child, may be felt, for it rises a moment in the fluid in which the fetus floats, and then sinks again on the finger. The most favorable time for this test is between the fifth and sixth months. Before the fifth month the fetus is too light, and after the sixth it is too closely packed to move readily and admit of this test. Ballottement is very conclusive of pregnancy, and especially when corroborated by other signs, but determines nothing as to the life of the fetus.

10. Kiesteine in the Urine—By keeping the urine of a pregnant woman a few days a whitish scum, of a fatty or curdy appearance, forms on the surface, and then gradually breaks up again from decomposition, emitting a strong odor as of decaying cheese. Kiesteine is a mucilaginous principle, and probably exists in the urine from the first month of pregnancy until delivery, and arises from the excess of nutriment formed in the blood of the mother for the child.

11. Sounds of the Fetal Heart—By applying the stethoscope to the lower portion of the abdomen of either side, usually on the left, about midway between the umbilicus and the anterior superior spinous process of the ilium, the fetal heart may be heard at twice the rate of the mother's. The sound has been compared to the muffled ticking of a watch, and the earliest time it can be heard is the beginning of the fifth month. When the pulsations of the fetal heart are heard they are the most positive of all the signs of pregnancy. At the same time the pulsations may be inaudible, and yet the woman be pregnant, as the fetus may have died, or the pulsations may be rendered inaudible only for a time.

12. Other Signs of Pregnancy—We can here only enumerate a few. Sharpness of the features, irritability of temper, and frequently toothache and other nervous complaints. Lastly, a frequent desire to pass water, especially in the night, is an early and valuable sign.

From the foregoing statements the reader will perceive that the diagnosis of pregnancy, especially in the early months, is far from being certain; the evidence is cumulative, no one sign being alone trustworthy, the probability rising in proportion to the accumulation of the signs. Errors in the diagnosis of pregnancy

usually arise from the attention of the observer being restricted to one or two signs only, and omitting to inquire for corroborative ones.

How to Determine Sex Before Birth—The interesting fact that the sex of the child can in a large proportion of cases be ascertained during gestation has recently been made known. When the fetal pulsations reach one hundred and forty-four per minute the child is probably a female, but when they are one hundred and twenty-four per minute probably a male. Any little variation from one hundred and twenty-four upwards, and from one hundred and forty-four downwards, will not alter the diagnosis, provided auscultation be practiced towards the end of pregnancy. Steinbach was correct in forty-five out of fifty-seven cases which he examined, while Frankenhauser was right in all the fifty cases which he examined to determine the sex of the fetus in utero.

Course to Pursue during Pregnancy—1. Diet. The diet should be simple, nutritious and easy of digestion; it should be thoroughly masticated, and but little fluid drunk at meal-times, especially cold, since cold retards digestion. It is an error to suppose that women require more nourishment in pregnancy than at other times, and large quantities of rich food, taken in the belief that it will contribute to the sustenance of the child, can but do harm. Spices, spiced meat, sausage and all highly seasoned food and late suppers must be refrained from. Plainly cooked animal food once a day, well boiled vegetables, ripe fruits, and such articles as rice, tapioca, arrow-root, will, if taken in moderation, rarely disagree with the stomach. Pie-crusts, smoked hams, salted meats generally, rich sauces and every article that has been known to occasion indigestion, must be rejected. All substances that have a tendency to produce costiveness of the bowels should be especially avoided, and unless some reason exists to the contrary, brown bread eaten in preference to white. Stimulating drinks—wines, ardent spirits, ale, porter, strong tea and coffee—are generally hurtful both to the mother and the fetus, or child.

2. Dress—Under this head, the origin of the word *enceinte*, used to signify the pregnant condition, is highly suggestive. It was the custom of the Roman women to wear a light girdle or cincture round their waists; but in pregnancy this was removed. A woman was then said to be *incincta* (unbound), and thus the term *enceinte* has been adopted to indicate pregnancy.

It would seem scarcely necessary to make any remarks upon the dress to be worn, were it not that some females, considerably advanced in pregnancy, often lace tightly for the sake of attending public entertainments or of diverting notice from their condition. At no time should stays be worn, for the simple reason that they are never required. But they should especially be avoided during pregnancy, since a continual and forcible compression of the abdomen, while nature is at work to secure its gradual enlargement to

accommodate the growth of the fetus, must be attended with serious injury to both mother and child. During gestation, or pregnancy, the uterus increases from two to fourteen inches in diameter. It will be obvious, therefore, how vain as well as criminal must be any effort to contract it or to conceal its enlargement. Palpitation of the heart, indigestion, disease of the liver, costiveness, difficulty of breathing, spitting of blood and persistent coughs, enlarged veins and swellings in the legs, disorders of the womb, deformity of the offspring and numerous other evils, have their origin in tight-lacing; and finally, if the child be born alive and moulded aright, and the mother escape her self-created perils, it may be questioned if compressed breasts and nipples can afford the requisite nourishment for the child.

The dress should be arranged, both as to material and quantity, with the view to comfort and to the season. There must be no pressure on any part; even the garters should be loosely worn. The feet and abdomen should be kept warm, since habitual coldness of these parts predisposes to colic, headache and miscarriage. The "chemiloon" dress has many advantages, not only as to the comfort of the woman but in regard to the free development of the fetus. This kind of garment is now so common that both patterns and complete garments can be purchased almost anywhere. Freedom in the dress gives freedom to move and breathe, and allows the fetus opportunity to come to physical perfection.

3. Exercise—Exercise is essential to retain good health during gestation and to secure a natural delivery, and it greatly favors the health of the infant. Walking in the open air is a most useful kind of exercise; for it calls into action more of the muscles of the body than anything else suited to this condition. Walking exercise is even more necessary in the winter than in the summer, and produces a much healthier and more lasting warmth than sitting before a fire. It should, if possible, be taken in the morning before dinner, and be in such scenes as to interest the mind as well as to strengthen the body. This walking will prevent a host of the morbid conditions and feelings which are apt to attend pregnancy. Care must be taken, however, to avoid such exercise as to cause positive fatigue; as too long walks, walking on a slippery road, dancing, lifting heavy weights, and all kinds of violent motion, which are liable to cause hemorrhage, miscarriage and bearing down of the womb. The passive exercise of riding in a carriage falls short of the object desired; and on the other hand riding on horseback exceeds it, besides the danger of fright and accident involved. In very wet or windy weather or when it is impracticable to walk out, the woman should use a large and well ventilated room, so that the air she breathes may be pure.

It will be plain from these general remarks that lassitude and languor should be striven against and overcome. On this account the pernicious habit of sleeping too long after dinner should not be

contracted. Too little sleep is, perhaps, even a less evil than too much. And hence ladies who pass the interval, or a good part of it, between dinner and tea on the couch or the bed generally suffer from debility which is likely to end in disease.

4. General Hints—Theatres, balls or exciting, brilliantly lighted public meetings should not be attended; early habits should be formed and all excessive mental emotions, as grief, despondency, anger and the like, guarded against. The cold or tepid bath should be used daily followed by vigorous rubbing. The mind should be kept tranquil, remembering that parturition is not necessarily attended by great suffering or great danger; such things being, in most instances, the penalty inflicted on those who disregard the hints here given.

DISORDERS OF PREGNANCY.

In a natural state of life, pregnancy would be comparatively exempt from suffering. In consequence, however, of disorders induced by artificial habits, the excessive use of drugs, constitutional diseases or accidental causes, this condition is too often accompanied by physical disorders, some of which we shall describe in the following pages, with the best means for their prevention and removal.

Melancholy, Fear, etc.—Fear, anger, joy, grief and other emotional disturbances operate powerfully upon the heightened susceptibility of a pregnant woman, and may affect both the mother and child unfavorably. A great feeling of dread sometimes comes, when the sufferer will see everything in a distorted way and ultimately have trembling, weakness of the limbs, nightmare and nervous irritability and all the evils of mental depression. Injudicious friends often aggravate this morbid state by recounting accidents and evil results of pregnancy which probably never occurred. Such thoughtlessness cannot be too strongly condemned. The statements are almost always untrue, but they may appear so real to the patient as to operate powerfully on her mind and thus produce the most serious results.

Useful occupation, combined with suitable out-door recreation or games, cheerful company or books, change of air and scene, or easy journeys to places of interest are of great advantage.

Fainting and Hysterical Fits—These are not frequent accompaniments of pregnancy, except at the period of quickening and in weakly and delicate females. The fits are far from being serious, except when associated with organic disease of the heart. If they occur toward the end of the pregnancy they may render recovery after child-birth more tedious than it would otherwise be. They are also unpleasant occurrences at the time of labor.

Causes—Increased sensitiveness of the nervous system from

debilitating causes, as neuralgia, prolonged sleeplessness, diarrhea or other discharges, anger or fright. Tight dresses, crowded and badly ventilated sitting rooms, churches, theatres, ball-rooms, etc., are frequent causes. When fainting occurs soon after labor it may arise from hemorrhage, and requires prompt and skillful treatment. See "Flooding after Delivery."

Symptoms—These differ from those of epileptic fits, as there is no choking noise in the throat, or biting of the tongue. There is a sensation of languor, with disposition to yawn; things appear to turn around, the sight becomes dim, the face pale; there is a buzzing or ringing in the ears, the patient sighs and becomes partially insensible.

Remedies—1. During an hysteric fit cold water may be sprinkled on the face. For a simple fainting fit the patient should be laid down, with the head and shoulders slightly raised, abundance of air admitted to the room and quiet maintained. Camphor, cologne-water, salts of ammonia, etc., may be applied to the nostrils. If the extremities are cold artificial warmth may be necessary. The cause must as far as possible be removed. When this is a tight dress, or a too hot or badly ventilated room, removal of the cause is generally sufficient. If fainting arise from constitutional conditions, professional treatment is necessary.

2. In ordinary cases the patient, upon the first feeling of faintness, ought to be laid down without a pillow, and her dress thoroughly loosened and the windows opened. It is scarcely necessary to say that there should be as few attendants as possible. This symptom indicates a change required in the habits of life to simpler, plainer, more natural ones; in brief, proper exercise, proper dress and proper diet are required here as well as in other cases. A change of air may prove beneficial when the patient is subject to fainting.

3. Attacks of hysterics can be temporarily cured by the use of small doses of assafetida (size of a pea), taken as often as required. Tincture of valerian is also an excellent medicine. A dose of the latter is from forty to eighty drops.

How to Avoid Hysteria—It is commonly supposed that a woman during pregnancy must not be subjected to long or severe mental effort. This is all a mistake. Let her work with her brain as steadily and as long as she chooses, so that she balances this labor by ample rest, recreation and exercise in the open air. If a woman begins to feel her mind over-taxed and her nerves overstrained, she should not lay the facts to too much mental study and work, but to a lack of physical exercise and want of rest. There is most danger from hysteria to those who have not sufficient employment for the mind—whose hands and brains are alike idle. It is a well known though not sufficiently considered fact, that hysterical symptoms are to be more frequently met with among women of leisure than among those who perform either hard physical or mental labor.

MORNING-SICKNESS, OR VOMITING DURING PREGNANCY.

In the early months of pregnancy, most women experience more or less of this; occasionally nausea or vomiting, or both, are very troublesome and persistent symptoms and give rise to serious concern as to the patient's health, especially in the first pregnancy of delicate women.

Causes—The increased action of the nerve-force employed in digestion to furnish material for enlarged growth, carried to so high a degree as to disturb the equilibrium of the digestive and assimilative forces. It is most common among the wealthy and inactive. Moderate morning-sickness is no doubt salutary, by diminishing that tendency to plethora or too great fullness of the system, which often attends pregnancy. Uterine displacements are known to produce morning-sickness, and it is more than possible that the slight falling of the womb, which is incident to the first months of gestation, may help to account for it. When sickness is invariably brought on or intensified during the latter part of the day or in the evening, after the patient has been upon her feet, it is due to displacement or falling of the womb; this is proved by the prompt relief that follows the replacement of the organ of the patient. Obstinate and long continued nausea or vomiting is generally caused by congestion, ulceration or displacement, or it may arise from hyperesthesia of the nervous system and require professional treatment. Nausea and sickness occurring towards night are more serious and obstinate, for the reasons already mentioned.

Symptoms—The first intimation of it generally occurs on rising from bed. Before getting up, the patient may feel as well as usual, but while dressing will be overtaken by nausea, followed by retching, and perhaps by vomiting. Or it may not occur until some little time after leaving the apartment, or not till after breakfast, which may be eaten with zest. In some cases, sickness is not felt till the evening, when its habitual return indicates one of the forms of displacement (falling or retroversion) of the womb incident to pregnancy. Morning-sickness may begin almost immediately after conception, of which it is often one of the earliest symptoms; but more frequently it does not commence until after the lapse of two or three weeks, and then continues more or less constantly and severely for three or four weeks, and in some instances till near the time of quickening, or even until confinement. In some rare instances it does not occur before the last weeks of pregnancy, and is then more apt to be severe; in other cases it is altogether absent during the whole period of gestation.

Treatment—The simpler modes of treatment are cheerfulness, mental composure, moderate out-of-door exercise and early hours. The regulation of the diet is also important, a change in the hours of eating to those in which the stomach is least likely to be

disordered, especially avoiding over-eating. Cold food will sometimes be retained when hot is rejected. In some cases two or three teaspoonfuls of beef-tea, frequently repeated, or soda-water and milk, or when these cannot be borne, small pieces of ice may be sucked. In extreme cases it may be necessary to give up the attempt of feeding by the mouth, and to depend upon injections by the rectum for a day or two.

Dr. J. S. Bailey and Dr. J. Kitchen have recently recorded several cases in which raw beef has been retained after every other kind of food had been rejected. It was chopped fine, with a little cayenne pepper and salt sprinkled over it, and given in teaspoonful doses at intervals of three hours, or put a thin slice of raw beef between two slices of bread, cut thin, and eat it. Although the idea of eating raw beef is repulsive, upon tasting it, it is not found disagreeable.

A few minutes before rising in the morning, take a cup of tea or black coffee without sweetening, and a slice of bread and butter. This seldom fails to prevent morning-sickness.

An infusion of peach-tree bark, in doses of a teaspoonful every half-hour during the forenoon, will answer a good purpose, as will an infusion of spearmint taken cold. One of the most certain remedies is nux vomica. Add from two to three drops to eight teaspoonfuls of water, and give a teaspoonful as often as necessary. A flannel bandage wrung out of cold vinegar and applied around the waist, with a dry one over it, is the best external application.

The following appropriate remarks on this subject are by Mrs. Duffey, in her valuable book entitled, "What Women Should Know": "A few years since I read an article in a health-journal in regard to the proper diet of a pregnant woman, the substance of which article has since been embodied in a little volume by Dr. M. L. Holbrook, entitled, 'Parturition without Pain.' A partial trial of the diet prescribed in this book has convinced me that, if its requirements were fully complied with, the result might be that pregnancy and child-birth, if not entirely devoid of suffering, would be a hundred-fold less to be dreaded than now. I advise every woman to get this book and read it for herself. I have not space for a repetition of all the directions concerning diet, but the substance of it is, to avoid all meats unless it be the flesh of young animals, such as lamb or chicken; to avoid also all articles made of wheaten flour, and substitute farina and rice in their place; to live principally on vegetables, and to indulge unsparingly in acid, unless they generate acid in the stomach and produce flatulency, then use sub-acid fruits. To comply fully with all the exactions of the volume referred to would require time, trouble and expense beyond the ability of most women. But vegetables and fruit are always to be had, and if one meal in the day is made entirely of fruit, it will save much distress.

"Fruit in the Place of Medicine—I have found in my

own experience, a most simple remedy used in conjunction with the exercise already recommended for the sickness accompanying pregnancy, which always on previous occasions was severe in the extreme. If I did not eat, I suffered terribly from hunger; if I did eat, I suffered still more terribly from a sickness which kept me on the verge of vomiting, yet never relieved me in that manner. Thus I constantly fluctuated between nausea and semi-starvation. There was always, day and night, a bad taste in my mouth which sensibly affected the flavor of everything I ate. My remedy was no more troublesome or expensive than this: immediately after each meal—at which I was careful that no inappropriate article was used—I ate a single tart apple or orange, which at once quelled all symptoms of nausea or heartburn, took away the unpleasant taste, and left me as free from distress as under ordinary circumstances, and with a hearty, healthy appetite to enjoy my next meal. Let me add, that my inclination led me to prefer a vegetable diet, and to avoid, as far as possible, meat, bread, pastry and sweets.

"Let women suffering from morning sickness try the acid fruit—apples, oranges or even lemons, if their sourness is not unpleasant. If a single apple or orange after each meal does not suffice, let them try two; let them eat ten if that number is necessary to conquer the distress. The principle is a correct one, and relief is certain. Let fruit be eaten at all hours of the day—before meals and after, on going to bed at night and upon getting up in the morning. If berries are in season, let them be eaten abundantly in their natural state—that is, without sugar. If the sickness still continues, omit a meal now and then, and substitute fruit in its stead. By persistence in this course, not only will nausea be conquered, but an easy confinement guaranteed.

"Reasons for the Exercise and Diet Prescribed—As already stated, exercise will conduce to vigorous and regular action of all the organs of the body, and will avert biliousness and plethora. A diminution of the quantity of food will lead still farther away from a plethoric condition. Avoidance of meat, pastry and articles of a like character, will produce a like result in regard to biliousness. Bread is omitted from the diet, because wheat flour—even bolted flour—contains a large proportion of phosphates or bone-making materials, the use of which will tend to harden the bony structure of the embryo (child) in too great a degree, and render parturition exceedingly painful. Vegetables furnish all necessary nourishment, and fruit, especially that of a sub-acid character, will correct any remaining tendencies of the stomach to biliousness or heartburn. It will also dissolve whatever bone-making material the food of the woman may contain, and the result will be that the bones of the unborn child will remain gristly and soft, yielding easily to pressure at the hour of birth, and rendering that hour far safer and freer from suffering to the mother without detriment to the babe itself."

HEARTBURN, WATERBRASH AND ACIDITY.

These complaints often occur during gestation, and may be generally traced to taking more food than the stomach can digest, frequently from the mistaken idea that the patient now requires more food than at any other time.

Treatment—An orange, a tart apple or a tumbler of not too sweet lemonade, will probably bring immediate relief. Vitriolic or citric acid may be also used with benefit. Lime-water and milk will bring relief when the heartburn is moderate. A few almonds or roasted pea-nuts have been found in mild cases to bring relief. So also has an infusion of peach-tree bark. The diet should be restricted, avoiding a too exclusive use of vegetables; all pastry, fatty kinds of food, stews, twice-cooked meats, hot-buttered toast, new bread, raw or half-cooked vegetables, and everything that is rich and indigestible, must be forbidden. Aerated bread is best for patients troubled with heartburn. Cold plain biscuits are also useful. Drinks should be taken sparingly with the meals.

SLEEPLESSNESS.

Sleeplessness is a prominent and annoying symptom in some women in all stages of pregnancy.

Treatment—When the sleeplessness occurs in the early part of the night the patient should sponge her face and neck with hot water, or, if this fail, she should apply a cold-water compress to the nape of the neck, just before going to bed. Similar measures may be adopted if the sleeplessness manifests itself in the early morning. A tepid foot-bath frequently meets the requirements.

SWELLING OF THE EXTREMITIES.

In advanced pregnancy women often suffer from a puffy swelling of the ankles, and sometimes of the thighs, or even of the external genital parts. Change of posture has a great influence upon the swelling of the legs; in the morning it is but slightly perceptible, but during the day it increases and towards night it is at its greatest degree.

Treatment—The recumbent posture will often lessen the inconvenience; and when the patient sits she should do so as much as possible with the feet and legs raised. Standing is more unfavorable than a moderate degree of walking exercise.

Cramps, swelled feet and varicose or bursting veins may all be avoided by frequently rubbing the limbs; a light and appropriate diet and abundance of exercise, which will tend to keep down the weight of the fetus, so that it shall not become burdensome.

SALIVATION (Ptyalism).

A profuse flow of saliva occasionally takes the place of morning-sickness, and is generally most troublesome in the earlier months of gestation; it is sometimes the earliest sign of that condition.

Symptoms—In the morning the patient finds her mouth and throat filled with tenacious mucus or saliva, which is ejected in roundish masses. When salivation is excessive it is a cause of exhaustion.

Treatment—Chlorate of potash or alum-gargles are often beneficial. As a mere palliative, holding a small piece of gum-arabic in the mouth is recommended. The chewing of coffee has been known to cure when all other remedies have failed. One half teaspoonful of sulphur is a favorite remedy.

This salivation is almost invariably accompanied by, and is the result of, constipation and heartburn; therefore whatever removes these latter will in all likelihood cure the salivation. If it is severe, a physician had better be consulted, who may possibly suggest some means of relief. The same course of treatment pursued in heartburn, frequent rinsing of the mouth with lime-water, and the use of solid food alone, will bring relief in ordinary cases. This symptom usually passes away about the fifth or sixth month.

COLIC.

Spasms, from flatulent distention of the bowels, are apt to occur during pregnancy, owing to cold or improper diet. It generally affects the large intestines.

Treatment—During the violent pains of colic, hot applications are useful, but a warm bath is objectionable for colic during pregnancy. A pint or a pint and a half of tepid water, boldly injected up the bowel by an enema-syringe with a long pipe, and repeated if necessary, is almost invariably and immediately successful, especially when the wind is in the lower part of the abdomen. Indigestible food should be avoided, especially pastry and uncooked or unripe fruits, and no food should be taken within at least three hours of going to bed. Persons liable to colic should wear a piece of flannel around the abdomen in cold or changeable weather, and keep the feet warm and dry. Daily exercise in open air should be taken and worry and excessive mental fatigue avoided.

CRAMPS.

Pregnant women are liable to cramps or irregular pains in the abdomen, loins, calves of the legs and feet especially about the fourth or fifth months, and towards the end of gestation or pregnancy,

which are due to changes in the uterine and abdominal structures from the growth of the fetus.

Treatment—Brisk friction to the legs morning and evening, and also while the cramps are on, will often afford much relief. At all times the feet and legs should be kept dry and warm.

To spring immediately to the feet, and bear the weight of the body on them, is another admirable remedy for cramps of the legs. This has a tendency to expand the ribs and walls of the abdomen, thus giving more room for the fetus.

TOOTHACHE, OR FACE-ACHE.

The toothache of pregnancy is a neuralgia from which some ladies begin to suffer soon after conception, and even recognize their condition by this symptom. It is, however, liable to happen at any period during pregnancy. The pain may attack one or more decayed teeth, or not quite sound, or it may extend along the jaw without affecting any tooth in particular. It is sometimes so intense as to render the patient temporarily delirious. Extraction of teeth is seldom advisable. An educated, reliable dentist, indeed, usually refuses to remove them for this cause, where it exists alone. Besides, patients of refined nervous sensibility, or who have a tendency to miscarriage, are in danger of abortion from the fear or shock of extraction.

Treatment—One of the best remedies for toothache is a piece of cotton saturated with oil of cloves and placed in the cavity of the tooth, or wrap the face in hot cloths. This will generally give immediate relief. Avoidance of cold and damp, improvement of the general health, especially of the digestive organs, should be promoted by the use of wholesome food, pure air, out-of-door exercise, bathing and regular early habits.

HEADACHE, DIZZINESS, ETC.

These are sometimes most distressing concomitants of pregnancy. There may be acute congestion, with throbbing, dimness of sight, confusion of ideas, and great heat of the head and face, with dizziness, intolerance of light and sound, etc. Or the face may be pale, cool, and the eyes heavy and languid. There may be also a feeling of weight on the top of the head or back of the neck, palpitation, nervous tremblings, a disposition to fall forward, variable or diminished appetite, gastric derangements, etc.

Treatment—In congestive headache the feet should be kept warm, and when cold, hot applications made. In headache from gastric derangements, free vomiting often gives relief; to promote which, if necessary, a tumblerful of warm water with a teaspoonful

of mustard mixed in it may be taken. In neuralgic headache, dry, hot flannels around the head, or a handkerchief tied tightly, is often palliative.

Preventive Treatment—Early hours, to obviate as far as possible the use of artificial light, heated rooms, etc.; the bath, with plenty of friction, in a well ventilated room every morning; regular daily, open-air recreation; domestic duties and anxieties should only be permitted to exercise a moderate influence, the patient aiming to live a tranquil and agreeable life; regularity or moderation in eating and drinking, avoiding eating in a hurry, taking hearty suppers, stimulating food or drinks, especially spirits, strong tea, coffee, etc.; thus the regular function of the bowels will be promoted to healthy action.

PAIN IN THE BREAST.

Some women are troubled with a pricking or acute pain in one or both breasts; the pain may become exceedingly troublesome, constant, or occur in paroxysms; generally there is no fever, although excessive suffering may cause sleeplessness and want of appetite; like face-ache and headache, this is generally of a neuralgic character.

Causes—Sympathetic irritation in the breasts, through pregnancy, which determines a flow of blood to those organs; compression of the breasts with stays, etc. It is especially liable to occur in women who have suffered from painful menstruation. As a symptom, pain or tension of the breasts may result from tumor in the womb, ovarian dropsy, etc., as well as from pregnancy.

Treatment—Take one part of Witch Hazel (*hamamelis*) and ten of olive-oil. Mix, and rub the breast frequently with it; it will afford speedy relief. Another good application for this purpose is to take one part of chloroform and twenty parts of glycerine and use as above; or bathe the breast with one part of camphor and three parts of water, mixed. Tight-fitting dresses should be avoided.

INCONTINENCE OF URINE.

The bladder is frequently affected during the months of pregnancy; in the early months by the descent of the womb, causing a frequent and painful desire to urinate, which, if not immediately yielded to, may result in an involuntary discharge, especially when the patient has a cough. In many cases this condition is very distressing; the constant discharge excoriates the parts more or less, so that the patient cannot move about without pain; while at the same time an offensive, urinous odor is exhaled from the person.

Treatment—The bladder should be trained to retain water during the day, though evacuation should not be too long postponed. All salt, acid and pungent articles of food, malt liquors, spirits, tea and coffee, should be avoided. Meat should be eaten with moderation; fruits, especially uncooked, taken sparingly; flatulent food, that causing wind on the stomach, should not be used. Nothing hot should be taken in the latter part of the day. Cold water, soft is preferable, toast and water, mucilaginous drinks, milk and water, flax-seed tea, and cocoa, are the most suitable beverages. Abstinence from fluids is not desirable, as rather tending to increase the acridity of the urine, which may be lessened by mucilaginous drinks. Local cold ablutions are strengthening.

RETENTION OF URINE.

This, the opposite condition to incontinence, may arise from pressure of the distended uterus or womb, or from displacement of the neck of the womb causing obstruction of the urethra. It requires prompt attention, as the pressure of the over-distended bladder upon the uterus may occasion serious inconvenience.

Treatment—The patient should make regular efforts to urinate; and if she fail in her endeavors, a single introduction of the catheter, an instrument for drawing off the water, will generally remove the difficulty. Often, however, the use of the catheter is entirely superseded by the following measures: The sudden application of a towel to the abdomen, after immersion in cold water, often causes an immediate contraction of the bladder and consequent discharge of urine. Sometimes the alternate application of a hot and cold towel is speedily successful. Even plunging the hands into a full basin of very cold water and moving them about, is generally followed by an immediate discharge of urine. Fomentations and injections of water up the bowel or vagina afford great relief, and often supersede the use of the catheter. The diet must be sparing, and, in severe cases, restricted to gruel and demulcent drinks—barley-water, gum water, flax-seed tea, or simple cold water. Tea and coffee should be taken very sparingly, or altogether omitted for a time. A change of the drinking-water is often advisable, especially if pure soft water can be obtained. Acids and too much salt should be avoided.

PILES (Hemorrhoids).

Piles is really a varicose condition of the veins of the rectum, and is one of the most frequent diseases of pregnancy. It is by no means peculiar to that condition, but some women are troubled then who do not suffer at any other time. External piles seldom

give rise to hemorrhage to any great extent, while internal piles often bleed profusely.

Causes—The chief cause is pressure of the enlarged womb upon the vessels of the pelvis, obstructing the circulation; minor causes are mechanical pressure of the contents of the bowels in constipation, acrid diarrhea, etc.

Treatment—External piles should be returned as quickly as possible by gently pressing them within the anus; then the patient should lie down for a short time to favor their retention; afterwards, the application of cotton or a cold compress will afford comfort and tend to prevent the descent of the piles. In internal piles, half a pint to a pint of water injected up the bowel in the morning has often a most salutary effect; it constricts the blood-vessels and softens the feces before the accustomed evacuation. Hard, costive motions and straining should always be prevented during piles, by injections of tepid water. An India-rubber syringe, with an ivory tube, should be used, it being much more efficient than glass, and less liable to injure the parts. If the tumors are too painful to permit of injections, the parts should be washed with tepid water; if they are much swollen and extremely tender, the patient may sit over the steam of hot water, or foment the parts with moderately warm water. When the inflammatory symptoms have subsided, washing the parts with cold water, and cold injections do much good.

The Abdominal Compress—This is made of three or four thicknesses of coarse linen cloth, from six to nine inches wide, to fit the individual, so as to cover the whole abdomen, including the liver and spleen, and extend down to the pubes. It should be wrung out of cold water, covered with oil-silk or India-rubber cloth, to prevent evaporation, and secured by three broad tapes around the hips and waist. The compress should fit as closely as possible so as to avoid displacement, otherwise air enters between it and the skin, and cold instead of a moist heat is produced. The best time for wearing it is during the night, and when taken off in the morning, the part which has been covered should be sponged with water and vigorously rubbed with a towel. The wet compress may sometimes be worn day and night, and renewed every twelve or twenty-four hours. It is of great utility in dyspepsia, chronic constipation and piles. Many of the Homœopathic chemists sell bandages for this purpose.

Cold sitz-baths are not always admissible in piles, as they increase local congestion by the reaction they occasion, and should not be used except by medical advice; warm to hot is best.

Diet—In piles this should be moderate, unstimulating and easy of digestion. The bowels should be kept open and regular. Coffees, peppers, spices, the excessive use of animal food and all stimulating beverages, should be avoided. A liberal quantity of well cooked vegetables and ripe fruits is recommended. Bread

made from unbolted flour is sometimes inadmissible. On this subject Dr. Blaikie makes the following remarks: "Bread from unbolted flour is both wholesome and nourishing for those accustomed to it from infancy; and to persons suffering from simple constipation, without piles, its occasional use instead of physic is most desirable. But in all cases of piles, when the mucous membrane of the intestines and rectum is irritable, the mechanical action of the scales of bran is most injurious and sure to produce aggravation."

DIARRHEA.

Diarrhea is not so frequent in pregnancy as constipation, but is generally more prejudicial. If very severe and long-continued it is apt to induce abortion.

Causes—Nervous irritation, induced by pregnancy; cold, to which pregnant women are very liable; insufficient or defective dress, and disease of the mucous membrane of the bowels. Diarrhea sometimes follows conception so closely that the patient has her attention first drawn by it to her condition, and it may return regularly every month, as though it came in the place of menstruation.

Treatment—In cases of protracted diarrhea the surface should be kept warm with flannel, a bandage around the abdomen often giving great relief. Night-air, late hours, stimulants and excesses of every kind should be avoided. Food should be light, and, in acute cases, taken cool or cold and only in small quantities at a time. Fluid food is most suitable, especially milk and lime-water or milk and soda-water. Restricting a patient solely to this diet for two or three days, or even longer, is often alone sufficient to cure diarrhea not dependent on a permanent chronic cause; and even where there is such a cause, much temporary benefit is gained. It need scarcely be stated that a fluid diet like the above is advantageous in diarrhea, because it is highly nutritious, and because it does not require a perfect condition of the intestinal mucous membrane to digest and absorb it.

CONSTIPATION.

Constipation is a frequent attendant on pregnancy, especially in ladies who live in towns and lead a sedentary life. Although constipation is generally less injurious than a too relaxed state of the bowels, it may occasion many inconveniences, and should be remedied as far as possible.

Causes—Constipation in pregnancy is generally referred to the pressure of the enlarged womb upon the bowels; but it is often due to torpor of the bowels, consequent on the increased action of the womb, diverting nervous and vascular forces from adjacent organs. Neglect of sufficient out-door exercise and indolent habits, for which pregnancy is supposed to be a justification, may also give rise to constipation.

Treatment—Daily out-of-door exercise; a tumblerful of fresh spring-water taken either on going to bed or on rising; the sparing use of animal food; the free use of vegetables, ripe or preserved fruits, brown-bread, oat-meal porridge, and also the hip-bath. When the bowels remain for many days unmoved, and there is uneasiness in consequence, recourse may be had to an enema or injection of tepid water or soapsuds. In using the enema several points should be well observed—that the rectum-tube be well greased; that the instrument be emptied of air before insertion; that the injection proceed slowly and if pain be occasioned the injection be suspended until it is gone and then renewed, and that the slow injection be continued till there is an urgent desire to evacuate or go to stool. A wash-basin full of water may be required, or a small quantity may suffice. If only a small quantity can be retained, and no result follow, the injection should be repeated after a little while. The wet compress for the abdomen, described under the head of "Piles," is also a very valuable adjunct. In some cases a small suppository of soap will insure a comfortable action of the bowels in an hour. A suppository made of a small piece of soap, of molasses candy or of tallow, pushed a little way up the anus into the rectum, will also probably give immediate relief.

The following comprehensive table prepared with great care, specifies some of the various foods that may be used with advantage during pregnancy. The laxatives to be used when the patient is suffering from constipation and the constipatives when the bowels are too free in their action.

TABLE OF FOODS.

Laxative.	Constipating.
Wheat-bread, at least twenty-four hours old.	Dried and smoked fish.
Mush from wheat flour, graham, oat-meal or corn-meal.	Cheese.
Cracked-wheat, cold raised biscuit, gems and crackers of wheat or graham-flour.	Chocolate.
Sago and rice and fruit puddings.	Boiled-Milk.
Fresh acid fruits of all kinds.	Tea.
Apples.	Coffee.
Peaches.	Panada.
Grapes.	Beans.
Plums.	Tapioca.
	Farina.
	Starch.

TABLE OF FOODS—Continued.

Laxative.	Constipating.
Tropical fruits in good, sound condition, such as figs, raisins, bananas, prunes, oranges and lemons.	Blackberries.
Dried-fruits, stewed plums, peaches and prunes being among the best.	Eggs, raw.
Rhubarb.	Milk, boiled.
Celery.	Barley.
Onions.	Hot white-bread.
Beets.	White crackers.
Tomatoes.	Black-pepper and spices
Green Peas.	All custard puddings.
Cauliflower.	Toast.
Squash.	Poultry.
Pumpkin.	Potatoes.
Corn.	Toasted white bread.
	Rolls, dumplings, etc., made with baking-powder.

Lean fresh meats have no decided influence in either condition.

SENSATION OF WEIGHT IN THE ABDOMEN.

In the latter months of pregnancy there is sometimes a very unpleasant sensation of weight and feeling as if the lower parts would give away. In these cases, adjust a bandage to the lower part of the body, draw it comfortably tight, and suspend it from the shoulders with a pair of elastic suspenders; it will in many cases relieve all the trouble, and the person will feel an agreeable sense of lightness and comfort.

Under no circumstances should the skirts be suspended from the hips, as is frequently the case. Let all the clothing be loose, especially such as fastens around the waist, and suspend the skirts by straps from the shoulders. See preceding remarks concerning "chemiloon."

Corsets and tight lacing are always objectionable, but here they should be entirely avoided from the very first. If women will wear them at other times let them be banished during pregnancy, if they value their own health or care for the well-being of their future children.

CAUSES OF A BAD GETTING-UP AFTER LABOR.

It is no uncommon thing for a patient otherwise healthy to have "a bad getting-up after labor"—that is, to be a longer time than usual in recovering the general condition, which in some cases is not attained for years. There is general debility, manifesting itself in various ways, notwithstanding a fair amount of rest, food and stimulants; inability to stand or walk a few steps without feeling ready to drop; bearing-down and discomfort in the pelvis;

abundant vaginal discharge, perhaps bloody, or muco-purulent, which continues three or four weeks after the birth of the child, and when the lochia ought to have ceased. The most frequent causes are, enlargement, prolapse or displacement of the womb, from taking the erect posture and resuming domestic duties too soon after confinement or miscarriage; defective uterine involution, which is the main cause of the displacements that so frequently follow child-birth, and the first steps to many uterine affections; ulceration or bruising of the uterus or its orifices by a severe or protracted labor, or from too violent removal of the placenta; inflammation of the womb, and a typhoid condition due to absorption of a portion of the placenta which is allowed to remain and decompose in the womb. The administration of purgatives and opiates is also a cause of a bad getting-up after labor. The old practice of starvation during the first few days after delivery is another cause. When, therefore, at the end of four or five weeks after parturition, or child-birth, notwithstanding fair nursing, good food and stimulants, the patient continues weak, unable to walk, and suffers from headache and red, mattery or fetid discharge, professional advice should be sought, as grave consequences may result from neglect. A physical examination is generally necessary to discover the true source of the mischief. The wife should sleep away from her husband. A cold-water abdominal bandage, tightly applied, will prove palliative. See "Puerperal Fever," "The Lochia," etc.

INVOLUTION AND SUB-INVOLUTION OF THE WOMB.

Involution is that contractive change which takes place in the womb after the removal of the fetus by abortion or delivery, by which it resumes its ordinary size and attains its usual compactness of tissue. Sub-involution is the arrest or retardation of that change; so that the womb remains enlarged and heavy, causing considerable distress and suffering.

Pathology—During pregnancy, and according to the growth of the child, the womb becomes developed in size and increased in weight. Immediately before the expulsion of a full-grown child, the womb is about fourteen inches long, and weighs at least twenty-five ounces. Immediately after the expulsion, the size and weight are very considerably reduced; the size is less than half what it was before parturition, and the weight is similarly diminished. This change is effected by the contraction of the muscular fibres of the uterus, which begins directly after the termination of the labor, which checks the supply and arrests the circulation of blood through the organ. With more or less pain the contraction still steadily proceeds. Meanwhile fatty degeneration and disintegration

of tissue and absorption aid in the restoration of the organ to its normal state. This, if the process goes on with regularity and without interruption, will be attained in the course of five or six weeks, when the compactness of tissue will be regained, and the uterus will measure about three inches in length, and weigh about two ounces. This wonderful contractive and absorptive change is termed involution; if it be incomplete the womb is said to be in a state of imperfect involution, or sub-involution.

Causes—It may readily be supposed that this process is subject to very easy arrest, and that this arrest may be induced by a variety of causes. A very common cause is the debility of the patient, whose weakness is so great that the uterine contractions are not sufficiently prompt, powerful and continuous to check the increased supply of blood to the organ when it is no longer required, and thus to lessen the nutrition which was very necessary before the child was born, but causes enlargement when the womb is empty. Another very common cause is the too early resumption of ordinary employments. Even vigorous, healthy, muscular women, who feel quite well and somewhat resent the necessity for retaining the recumbent posture, often "get about" too soon. The change of the muscular structure of the womb plainly indicates that rest in bed should be taken for at least a fortnight, and that for several weeks after that there should be frequent recumbency and a very careful return to active exercise. Avoid lifting, going up and down stairs or much walking. There is some little danger in the present day, when there is such a desire and call for activity, lest in abandoning some of the old-fashioned, stifling and weakening customs of a "confinement," the physical necessity for lying down should be ignored In dispensary practice, where the patients are drawn from the poorer classes, who, without attendance and with the claims of a family, are unable or unwilling to submit to restraint after confinement, by far the commonest form of uterine disease is sub-involution of the uterus, with its attendant evils of displacement and chronic catarrhal conditions of the mucous membrane. Other causes of the evil are inflammation within the pelvis, in any of its varieties; too early return to marital intercourse and too frequent sexual indulgence, whereby the womb and its appendages are too soon and too much excited. It should also be observed that if the process of involution be arrested, the return of the menses will have a tendency to confirm the arrest, and by the monthly congestion, causing increase of size and weight, to produce permanent enlargement; which is as surely followed by the development of diseases now so frequent, and denominated under the general terminal, female weaknesses. These when classified present a formidable list of ailments either of which possibly may render the whole after life of the individual one of unmitigated suffering; therefore this book is written as a guide to the feet and a light to the path of those thus exposed to these ills of life.

There is one error which we are here solicitous to correct, namely, the supposition that it is not so necessary to retain the recumbent posture after abortion as after delivery at full term. Now involution is as natural and necessary a process in the one case as in the other; and sub-involution may follow abortion, even in the early months of pregnancy, as well as at full term; indeed, it is thought to be much more likely to occur in the former case than in the latter. This is probably because the womb has not reached that normal condition which provides for the contraction of its muscular fibres.

Symptoms—A feeling of weight, with more or less bearing-down of the womb, and a tendency to excessive and too frequent menstruation, the severity of the symptoms being in proportion to the extent of the enlargement. But the excessive menstruation is the most troublesome, distressing and alarming effect and symptom of sub-involution. This is explained by the fact that the relaxed state of the muscular tissue favors the exudation of blood, and that there is an undue amount of blood in the congested uterine veins. The profuse flow is not always immediate, even months may elapse before it occurs; but after a while it is experienced and examination proves that there is enlargement of the uterus due to sub-involution. In the intervals between the periods there is frequently profuse leucorrhea and other attendant symptoms are debility, great pain in the back, irritability of the bladder and straining.

Treatment—The various causes that have been in operation to produce the condition, as already enumerated, must be avoided. Rest, in recumbent posture, is indispensable. Temporary separation from the husband's bed, perfect *absque marito*, generally leads to great improvement, and if combined with other measures and continued long enough, may lead to complete restoration. In many cases the health of both husband and wife needs careful supervision. See also the preceding article, and that on "Profuse Menstruation."

LACTATION, OR NURSING.

The Functions of the Breasts—The doctrine cannot be too strongly enforced that every healthy mother should nurse her offspring. The reasons for this may be inferred from the constitution of the female organization, and from the fact that no preparation of food can ever be more than a mere approximation to the mother's milk. After the birth of the child, nature continues to secrete an excess of nutrient matter, but this excess is transferred from the uterine system to the breasts, where it is secreted in the form of milk for the nourishment of the young offspring.

Pretexts for Non-Nursing—Many women seek for professional sanction to wean their infants after a few weeks' nursing, and

some even to shirk the duty entirely. The demands made by the toilet, the pleasures of the table, fashionable society, late hours or other forms of dissipation, render nursing inconvenient and distasteful. The disposition to evade this great natural duty should be strenuously opposed; it deprives a mother of one of the most pleasurable and soothing duties of maternity, and it robs the infant of its inalienable right to breast-milk, laden with all the riches of its mother's affection, while exposing it to the dangers of artificial substitutes.

Care of the Breasts—Much inconvenience and suffering may be obviated by paying proper attention to the breasts during pregnancy. For two or three of the last months they should be specially bathed with cold water every morning, and left perfectly dry. If the breasts are painful, hard and much distended, two thicknesses of old linen wrung out of cold water may be placed over them and covered with oiled silk. A kind of sling should then be formed by means of a handkerchief or band secured at the back of the neck, and so arranged as to support the breast. Only a sparing quantity of fluids should be permitted.

Diet for the Nursing-Mother—A lady does not require extra good living when nursing, but discrimination in the selection of her food is necessary. If she eats slowly, she may eat sufficient to satisfy hunger, but it is important that she should not overload the stomach, or partake of indigestible food which would occasion intestinal derangement, to the injury of the infant as well as herself. The rule established since the time of Mother Eve has been confirmed by observation. "That which affects the mother also affects the nursling." The meal-hours should be regular, and late dinners or suppers avoided.

To prove that the kind of food taken by the mother powerfully influences the quality of the breast-milk, it is only necessary to cite the well known fact that the quality of cow's milk is mainly determined by the food on which the animal lives. Thus, a cow fed on turnips produces milk and butter having the flavor of turnips, showing that the milk partakes of the qualities of the food on which she feeds. The same holds good in regard to the human species, and proves the impropriety of a nursing-mother being allowed to eat anything unwholesome or indigestible.

Experience has taught mothers that if they eat anything acid, and partake freely of fruits and vegetables, the milk brings on colic in the infant and causes diarrhea. Mothers who nurse their infants must therefore often practice self-denial in eating and drinking for the sake of their offspring.

It is not intended to suggest by these remarks that a nursing woman should be excessively particular as to her food. Animal food, varied from day to day—beef, mutton, chicken, game and fish, and any kind of vegetables that have been found not to disagree with herself or her infant, and easily digestible, may be eaten; but

such meats as goose, duck, salted beef, shell-fish, rich or highly seasoned dishes, pastry, etc., should not be taken. Greens, cabbage, fruit and any other articles of food which the mother has found to disagree with herself or child, must also be avoided. Milk and water, barley-water, toast and water, or even cold water in small sips, is best to appease the thirst to which the nursing mother is sometimes subject; but beer or wine tends rather to increase thirst.

Violent Exercise and Mental Depression Deteriorate the Milk—Women who are nursing are liable to fits of depression which should be guarded against. The best remedy is a short, pleasant walk, or a drive in the country. Healthy exercise in the fresh air admirably promotes cheerfulness and serenity of spirits. On no account should wine or stimulants be resorted to, for they only raise the spirits for a short time, and cause increased subsequent depression, to remove which fresh and augmented supplies of stimulants would be required. The society of cheerful friends is often a useful stimulus; but visiting must be done within prudent limits, or it will weary and harass the mother and diminish or deteriorate the supply of breast-milk. The ill effect thereof is visible in the child.

Regimen of Wet-nurses—The regimen and diet of wet-nurses should be as nearly as possible like those they have been previously accustomed to. A woman accustomed to active duties and frugal diet is certain to suffer in her health if she suddenly relapses into a life of in-door idleness, and has a too abundant supply of food, and takes such beverages as ale, stout or wine. A wet-nurse taken from industrial pursuits should continue to perform light duties, at least, or take a large amount of regular out-of-door exercise. The use of stimulants is injurious, and if taken to cause a good supply of milk will result in disappointment, and bring on indigestion and a host of evils from which the infant is sure to suffer. If the child does not steadily grow and increase in weight the nurse should be changed.

If there be a choice of nurses of otherwise equal capacity, preference may be given to one of dark complexion, for it has been found that the milk of the brunette is richer in each of the organic constituents than that of the blonde.

In the interest of healthy women employed as wet nurses, we state here that a syphilitic infant ought not to be nourished from their breasts. The nurse who suckles such a child incurs enormous risk, for many an unsuspecting woman has acquired syphilis from her nursling. Artificial lactation, if properly carried out, may, in such a case, be an excellent substitute for the breast.

STATED HOURS FOR NURSING

A habit very generally prevails on the part of the mother of giving the infant the breast too frequently; a habit prejudicial alike

to the mother and the child. Regularity in all life's habits should be commenced and continued all through subsequent life. It may be laid down as a rule, that for the first month the infant should be suckled about every two hours and a half during the day, and every three or four hours during the night; the intervals should be gradually lengthened until about the third month, when it should have the breast only every three hours during the day, and about every four or five hours at night. Even during the earliest period of infancy the child will acquire regular habits in this respect by judicious management on the part of the mother. By giving the breast at regular, stated times, the mother will be able to obtain proper rest and hours of uninterrupted sleep, which can scarcely be enjoyed by those who have fallen into the bad habit of permitting the infant to be at the breast during a considerable part of every night, or of offering it to the child whenever it cries or manifests any uneasiness.

PROLONGED NURSING.

The process of lactation forms a great drain on the constitution, and although healthy women, under favorable circumstances, suckle their children for a considerable time without sustaining injurious effects, still in delicate persons, or under unfavorable hygienic conditions, nursing, even within the otherwise healthy term, may be productive of permanently serious results.

Some mothers derive the greatest pleasure from nursing their children, and never seem quite ready or willing to wean them. In addition to the pleasure of suckling, there is often another most powerful motive to postpone weaning as long as possible. The idea exists notwithstanding the contrary is so frequently illustrated that conception cannot occur while the function of menstruation is suspended. It is well known that the nursing-mother does not menstruate and here arises the misconception of the fact that she is not likely to conceive. Hence we often find lactation continued for twelve or eighteen months, with the view of avoiding pregnancy. This expedient we have frequently found to be adopted, especially by poor misguided parents. But inasmuch as nursing does not always shield from pregnancy, and as the health is generally injured by prolonged nursing, it should be avoided.

The period when nursing becomes hurtful varies considerably in different cases, from a few weeks after the birth of the child to twelve months.

When to Wean—The symptoms which indicate that lactation is injuriously affecting the mother are, aching pain in the back, or a dragging sensation when the child is in the act of nursing, accompanied or followed by a feeling of exhaustion, sinking and emptiness; general weariness and fatigue; languor, unrefreshing or

disturbed sleep; headache at the top of the head, the painful spot being often perceptibly hotter to the touch than other parts; dimness of vision, noises in the ear, loss of appetite and difficulty of breathing and palpitation after exertion or ascending stairs. If the nursing is persisted in, the patient becomes pale, thin and weak; other indications of debility follow—night sweats; swelling of the ankles; nervousness and extreme depression of spirits; the melancholy being often of a religious character. In short, we may have the early symptoms of puerperal mania, and it is important that these symptoms should be quickly detected, and when they are amenable to treatment.

Accessory Means—Weaning should be commenced immediately; nothing short of this will, in general, be of any real utility. An attempt to force the supply of milk by large and frequent quantities of beer, wine or spirits, will be unsuccessful and injurious. Should the infant be four or six weeks old, it may be weaned with a fair chance of doing tolerably well. Indeed, cases now and then occur in which the function of lactation cannot be continued even so long as a month. In slight cases, however, and when the infant is but a few weeks old, the mother should have a good supply of plain, nourishing food, with cocoa and good milk, to the exclusion of tea, coffee, etc. The use of cocoa is often productive of the best results by augmenting the secretion of milk. If, notwithstanding the use of these means, a proper supply of milk is not yielded, and the health and strength of the patient do not improve, all attempts at nursing should be at once abandoned.

LABOR.

Calculation of the Time of Labor—The following table will be especially valuable to the newly married woman, who, through delicacy, might hesitate to seek advice on this important and interesting subject. Much time may be saved, often great anxiety avoided and timely medical and other attendance secured, by ability to approximate in reckoning to the hour of solicitude and hope.

The period of pregnancy, from conception till confinement, is calculated at ten lunar months, or forty weeks, which amounts to 280 days. It is sometimes reckoned at nine calendar months, that is 273 days, or 39 weeks; probably, however, forty weeks is the safer reckoning. Gestation is occasionally protracted beyond 280 days. Cases are recorded in which labor has been delayed 10, 20 or even 30 days beyond the usual period, but such cases are very rare. When the date of conception is known, the reckoning begins from that day. If that be not known, then the calculation must commence from the last monthly period: the rule of ten days later ob-

tains. If the time of the last monthly course cannot be remembered, then that of quickening, or when the movements of the child are first perceived, must be made use of.

Women who make use of the annexed table should remember that the period of pregnancy is slightly altered by the ages of the parties concerned; the fact being clearly proved that the younger the husband and wife, the shorter the term of utero-gestation; and, *vice versa*, as age increases, the term of gestation is proportionately lengthened.

Dr. Clay states that he once witnessed a curious experiment bearing on this subject, on the eggs of domestic fowls. Pullet-eggs can be easily distinguished from those of hens of three or more years old. A certain number of them were placed under a young hen, and an equal number of eggs from older fowls under an old hen. The result was, that every chick had escaped its shell from under the young hen, at least twenty-four hours, some even as much as thirty-six, sooner than those of the other. This difference is very remarkable in so short a period of incubation. He infers from this and other circumstances that the duration of the gestative period is far more definite than has hitherto been supposed, and that where the circumstances are similar, the result as to the length of term is very nearly the same. In maintaining that utero-gestation is definite and regulated by age, the age is not to be calculated by that of the mother alone, but by the combined ages of both the parents.

The annexed table, and many of the subjects treated of in this division of the book are entirely new, and have never as yet been treated of in any books published in this country, and will be of the utmost importance and practical utility to every mother, especially young mothers, and newly married women.

There is a vast amount of counsel and advice imparted here, as well as many simple remedies given, for which women do not always want to go to a physician. Besides, through delicacy and modesty, they often let many such afflictions run too long, and in an economical point of view it is important, for there is always more or less information necessary and desired on these subjects for which people do not always like to incur the expense of calling a physician or counseling with one; and, again, in these articles they have, as a general rule, more complete and full instructions than a physician would take the time to give them.

[SEE TABLE ON OPPOSITE PAGE.]

CALENDAR, BY WHICH ANY PREGNANT WOMAN MAY CALCULATE ALMOST THE EXACT TIME OF HER DELIVERY, GIVING THE THREE PERIODS OF GESTATION.

Concep.		Quick.		Labor.		Concep.		Quick.		Labor.	
Jan.	1	May	20	Oct.	8	Feb.	25	July	14	Dec.	2
"	2	"	21	"	9	"	26	"	15	"	3
"	3	"	22	"	10	"	27	"	16	"	4
"	4	"	23	"	11	"	28	"	17	"	5
"	5	"	24	"	12	March	1	"	18	"	6
"	6	"	25	"	13	"	2	"	19	"	7
"	7	"	26	"	14	"	3	"	20	"	8
"	8	"	27	"	15	"	4	"	21	"	9
"	9	"	28	"	16	"	5	"	22	"	10
"	10	"	29	"	17	"	6	"	23	"	11
"	11	"	30	"	18	"	7	"	24	"	12
"	12	"	31	"	19	"	8	"	25	"	13
"	13	June	1	"	20	"	9	"	26	"	14
"	14	"	2	"	21	"	10	"	27	"	15
"	15	"	3	"	22	"	11	"	28	"	16
"	16	"	4	"	23	"	12	"	29	"	17
"	17	"	5	"	24	"	13	"	30	"	18
"	18	"	6	"	25	"	14	"	31	"	19
"	19	"	7	"	26	"	15	Aug.	1	"	20
"	20	"	8	"	27	"	16	"	2	"	21
"	21	"	9	"	28	"	17	"	3	"	22
"	22	"	10	"	29	"	18	"	4	"	23
"	23	"	11	"	30	"	19	"	5	"	24
"	24	"	12	"	31	"	20	"	6	"	25
"	25	"	13	Nov.	1	"	21	"	7	"	26
"	26	"	14	"	2	"	22	"	8	"	27
"	27	"	15	"	3	"	23	"	9	"	28
"	28	"	16	"	4	"	24	"	10	"	29
"	29	"	17	"	5	"	25	"	11	"	30
"	30	"	18	"	6	"	26	"	12	"	31
"	31	"	19	"	7	"	27	"	13	Jan.	1
Feb.	1	"	20	"	8	"	28	"	14	"	2
"	2	"	21	"	9	"	29	"	15	"	3
"	3	"	22	"	10	"	30	"	16	"	4
"	4	"	23	"	11	"	31	"	17	"	5
"	5	"	24	"	12	April	1	"	18	"	6
"	6	"	25	"	13	"	2	"	19	"	7
"	7	"	26	"	14	"	3	"	20	"	8
"	8	"	27	"	15	"	4	"	21	"	9
"	9	"	28	"	16	"	5	"	22	"	10
"	10	"	29	"	17	"	6	"	23	"	11
"	11	"	30	"	18	"	7	"	24	"	12
"	12	July	1	"	19	"	8	"	25	"	13
"	13	"	2	"	20	"	9	"	26	"	14
"	14	"	3	"	21	"	10	"	27	"	15
"	15	"	4	"	22	"	11	"	28	"	16
"	16	"	5	"	23	"	12	"	29	"	17
"	17	"	6	"	24	"	13	"	30	"	18
"	18	"	7	"	25	"	14	"	31	"	19
"	19	"	8	"	26	"	15	Sept.	1	"	20
"	20	"	9	"	27	"	16	"	2	"	21
"	21	"	10	"	28	"	17	"	3	"	22
"	22	"	11	"	29	"	18	"	4	"	23
"	23	"	12	"	30	"	19	"	5	"	24
	24	"	13	Dec	1	"	20	"	6	"	25

Concep.	Quick.	Labor	Concep.	Quick.	Labor
Apr. 21	Sept. 7	Jan. 26	June 20	Nov. 6	March 27
" 22	" 8	" 27	" 21	" 7	" 28
" 23	" 9	" 28	" 22	" 8	" 29
" 24	" 10	" 29	" 23	" 9	" 30
" 25	" 11	" 30	" 24	" 10	" 31
" 26	" 12	" 31	" 25	" 11	April 1
" 27	" 13	Feb. 1	" 26	" 12	" 2
" 28	" 14	" 2	" 27	" 13	" 3
" 29	" 15	" 3	" 28	" 14	" 4
" 30	" 16	" 4	" 29	" 15	" 5
May 1	" 17	" 5	" 30	" 16	" 6
" 2	" 18	" 6	July 1	" 17	" 7
" 3	" 19	" 7	" 2	" 18	" 8
" 4	" 20	" 8	" 3	" 19	" 9
" 5	" 21	" 9	" 4	" 20	" 10
" 6	" 22	" 10	" 5	" 21	" 11
" 7	" 23	" 11	" 6	" 22	" 12
" 8	" 24	" 12	" 7	" 23	" 13
" 9	" 25	" 13	" 8	" 24	" 14
" 10	" 26	" 14	" 9	" 25	" 15
" 11	" 27	" 15	" 10	" 26	" 16
" 12	" 28	" 16	" 11	" 27	" 17
" 13	" 29	" 17	" 12	" 28	" 18
" 14	" 30	" 18	" 13	" 29	" 19
" 15	Oct. 1	" 19	" 14	" 30	" 20
" 16	" 2	" 20	" 15	Dec. 1	" 21
" 17	" 3	" 21	" 16	" 2	" 22
" 18	" 4	" 22	" 17	" 3	" 23
" 19	" 5	" 23	" 18	" 4	" 24
" 20	" 6	" 24	" 19	" 5	" 25
" 21	" 7	" 25	" 20	" 6	" 26
" 22	" 8	" 26	" 21	" 7	" 27
" 23	" 9	" 27	" 22	" 8	" 28
" 24	" 10	" 28	" 23	" 9	" 29
" 25	" 11	March 1	" 24	" 10	" 30
" 26	" 12	" 2	" 25	" 11	May 1
" 27	" 13	" 3	" 26	" 12	" 2
" 28	" 14	" 4	" 27	" 13	" 3
" 29	" 15	" 5	" 28	" 14	" 4
" 30	" 16	" 6	" 29	" 15	" 5
" 31	" 17	" 7	" 30	" 16	" 6
June 1	" 18	" 8	" 31	" 17	" 7
" 2	" 19	" 9	Aug. 1	" 18	" 8
" 3	" 20	" 10	" 2	" 19	" 9
" 4	" 21	" 11	" 3	" 20	" 10
" 5	" 22	" 12	" 4	" 21	" 11
" 6	" 23	" 13	" 5	" 22	" 12
" 7	" 24	" 14	" 6	" 23	" 13
" 8	" 25	" 15	" 7	" 24	" 14
" 9	" 26	" 16	" 8	" 25	" 15
" 10	" 27	" 17	" 9	" 26	" 16
" 11	" 28	" 18	" 10	" 27	" 17
" 12	" 29	" 19	" 11	" 28	" 18
" 13	" 30	" 20	" 12	" 29	" 19
" 14	" 31	" 21	" 13	" 30	" 20
" 15	Nov. 1	" 22	" 14	" 31	" 21
" 16	" 2	" 23	" 15	Jan. 1	" 22
" 17	" 3	" 24	" 16	" 2	" 23
" 18	" 4	" 25	" 17	" 3	" 24
" 19	" 5	" 26	" 18	" 4	" 25

Concep.	Quick.	Labor.	Concep.	Quick.	Labor.
Aug. 19	Jan. 5	May 26	Oct. 18	March 6	July 25
" 20	" 6	" 27	" 19	" 7	" 26
" 21	" 7	" 28	" 20	" 8	" 27
" 22	" 8	" 29	" 21	" 9	" 28
" 23	" 9	" 30	" 22	" 10	" 29
" 24	" 10	" 31	" 23	" 11	" 30
" 25	" 11	June 1	" 24	" 12	" 31
" 26	" 12	" 2	" 25	" 13	Aug. 1
" 27	" 13	" 3	" 26	" 14	" 2
" 28	" 14	" 4	" 27	" 15	" 3
" 29	" 15	" 5	" 28	" 16	" 4
" 30	" 16	" 6	" 29	" 17	" 5
" 31	" 17	" 7	" 30	" 18	" 6
Sept. 1	" 18	" 8	" 31	" 19	" 7
" 2	" 19	" 9	Nov. 1	" 20	" 8
" 3	" 20	" 10	" 2	" 21	" 9
" 4	" 21	" 11	" 3	" 22	" 10
" 5	" 22	" 12	" 4	" 23	" 11
" 6	" 23	" 13	" 5	" 24	" 12
" 7	" 24	" 14	" 6	" 25	" 13
" 8	" 25	" 15	" 7	" 26	" 14
" 9	" 26	" 16	" 8	" 27	" 15
" 10	" 27	" 17	" 9	" 28	" 16
" 11	" 28	" 18	" 10	" 29	" 17
" 12	" 29	" 19	" 11	" 30	" 18
" 13	" 30	" 20	" 12	" 31	" 19
" 14	" 31	" 21	" 13	April. 1	" 20
" 15	Feb. 1	" 22	" 14	" 2	" 21
" 16	" 2	" 23	" 15	" 3	" 22
" 17	" 3	" 24	" 16	" 4	" 23
" 18	" 4	" 25	" 17	" 5	" 24
" 19	" 5	" 26	" 18	" 6	" 25
" 20	" 6	" 27	" 19	" 7	" 26
" 21	" 7	" 28	" 20	" 8	" 27
" 22	" 8	" 29	" 21	" 9	" 28
" 23	" 9	" 30	" 22	" 10	" 29
" 24	" 10	July 1	" 23	" 11	" 30
" 25	" 11	" 2	" 24	" 12	" 31
" 26	" 12	" 3	" 25	" 13	Sept. 1
" 27	" 13	" 4	" 26	" 14	" 2
" 28	" 14	" 5	" 27	" 15	" 3
" 29	" 15	" 6	" 28	" 16	" 4
" 30	" 16	" 7	" 29	" 17	" 5
Oct. 1	" 17	" 8	" 30	" 18	" 6
" 2	" 18	" 9	Dec. 1	" 19	" 7
" 3	" 19	" 10	" 2	" 20	" 8
" 4	" 20	" 11	" 3	" 21	" 9
" 5	" 21	" 12	" 4	" 22	" 10
" 6	" 22	" 13	" 5	" 23	" 11
" 7	" 23	" 14	" 6	" 24	" 12
" 8	" 24	" 15	" 7	" 25	" 13
" 9	" 25	" 16	" 8	" 26	" 14
" 10	" 26	" 17	" 9	" 27	" 15
" 11	" 27	" 18	" 10	" 28	" 16
" 12	" 28	" 19	" 11	" 29	" 17
" 13	March 1	" 20	" 12	" 30	" 18
" 14	" 2	" 21	" 13	May 1	" 19
" 15	" 3	" 22	" 14	" 2	" 20
" 16	" 4	" 23	" 15	" 3	" 21
" 17	" 5	" 24	" 16	" 4	" 22

LABOR

Concep.	Quick.	Labor.	Concep.	Quick.	Labor.
Dec. 17	May 5	Sept. 23	Dec. 25	May 13	Oct. 1
" 18	" 6	" 24	" 26	" 14	" 2
" 19	" 7	" 25	" 27	" 15	" 3
" 20	" 8	" 26	" 28	" 16	" 4
" 21	" 9	" 27	" 29	" 17	" 5
" 22	" 10	" 28	" 30	" 18	" 6
" 23	" 11	" 29	" 31	" 19	" 7
" 24	" 12	" 30			

NOTE—The figures in the first and fourth columns on each page of the table have reference to the time of conception; the two next immediately succeeding, in each case, refer to the time when quickening may be expected in the natural course to be felt and labor to occur. For example—(See first dates given in table): If conception occurs January 1, quickening will be felt May 20, and labor begin October 8; or if the first occur February 22, quickening may be expected July 11, and labor November 29.

TWILIGHT SLEEP

Twilight Sleep has not proved as successful as anticipated. This treatment of childbirth consists of injection of drugs into the arm of the expectant mother. It was thought that these drugs would relieve the woman of her pain, but on account of the variations in the age of mothers, no definite dose could be set, and the result was that in the majority of cases, the small doses given was ineffective. It also proved to be a failure because it endangered the life of the baby. In many cases the child was born in a coma and could not be revived.

DIFFICULT LABOR.

Influence of Artificial Habits—Many of the sufferings attendant upon parturition or labor arise from those habits of life which it is the object of this article to expose and to guard against, such as diet of an improper quality or quantity, the use of stimulating beverages, want of sufficient pure air and healthy exercise, tight lacing, late hours, and other injurious habits. Healthy women of regular habits accustomed to out-of-door exercise, and whose general mode of life is natural, are freed from the long train of miseries which are the too frequent concomitants of child-bearing.

Obstructive Causes—At the same time causes of difficult labor may exist of a more remote nature and less directly referable to the habits of the patient. Such are contraction and deformity of the bones of the pelvis, from rickets, or from a similar disease in adult life; obstruction from tumors, dropsy, the large size of the child, a hydrocephalic head or wrong presentation. The management of these cases requires professional knowledge and skill.

Simpler causes of difficult or tedious labors are a distended bladder, accumulation in the lower bowel, or indigestion from a too full meal; or from food that disagrees taken just before labor sets in. Prompt treatment suffices at once to remove these obstacles to the progress of labor.

PREPARATION FOR LABOR.

The Monthly Nurse—She should be a middle-aged married woman, or a widow having experience and of temperate, kind and cleanly habits, and free from any defect of sight or hearing. In every respect she should be subordinate to the medical attendant and faithfully carry out his directions, both as to the mother and infant, for he alone is responsible.

The Lying-in Room—If practicable, a spacious, well-ventilated room having a southern aspect, should be selected. Provision should exist both for the admission of fresh air and the escape of tainted air. Renewal of the air is generally best secured by occasionally leaving the door ajar, having the fireplace open, and the top sash of the window more or less down, according to the season. Fresh air wonderfully helps the patient to go through the process of parturition. In cold weather a fire may be kept in the room, but neither the mother nor infant should be exposed to its direct influence.

Who Should be Present at the Birth—In addition to the medical man and the nurse, one or two female friends may likewise be present in the chamber; they should be prudent, cheerful persons. Remarks calculated to depress the patient, especially any referring to unfavorable labors, are strictly improper. If con-

venient, the mother of the patient may be in the house, or within a short distance, the knowledge of such fact tending to comfort the patient. But she should not be in the lying-in chamber, as maternal anxiety is occasionally very embarrassing there. There are, however, exceptions to this rule.

Minor Preparations—All articles of clothing necessary for the mother and infant should be well aired, ready for immediate use and so arranged that they may be found in an instant. A little fresh, unsalted lard, about twelve inches' length of nice twine or four or five threads, a pair of blunt-ended scissors, a few patent or safety pins and the binder or bandage. Also a piece of waterproof sheeting, or strong oiled silk, or even a common oil-cloth tablecover, should be placed under the blanket and sheet over the right side of the bed, to protect it from being soiled by the discharges.

Attention to the Bowels—Attention to the action of the bowels is necessary. Generally the bowels are somewhat relaxed—a wise provision of nature, for by thoroughly emptying the bowel more space is gained for the birth of the child. Should, however, the bowels be confined, an injection of one or two pints of tepid flaxseed tea or water will be sufficient to empty the intestines and is far more preferable to the common but reprehensible practice of taking castor-oil, or any other aperient drug. Ample experience leads us emphatically to denounce the practice of giving purgatives, as both unnecessary and hurtful. A good injection of water as soon as labor has set in, especially when the patient is costive, will not only facilitate the birth of the child, but obviate the unpleasant occurrence of an escape of feces during parturition. If there is a considerable collection of hardened feces, a warm soap-and-water injection may be necessary.

The Bladder—During labor the patient should never neglect to urinate as often as necessary. The proximity of the bladder to the womb renders it most undesirable that the former should be distended with urine, as nature requires the utmost available space for the passage of the child. Besides, the powerful action of the womb at the commencement of labor may, if the bladder is distended with urine, press it down into the vagina, thus injuring the bladder and retarding labor. This caution is especially necessary in first labors, when, from refined sensibility, ladies are apt to suffer much inconvenience from inattention to this point. If the bladder is full and there is inability to urinate, the measures suggested in the section on "Retention of Urine" should be adopted, or better, the doctor should be informed of the fact. The importance of attention to the state of the bladder during and immediately after labor can scarcely be overrated.

Position of the Patient—During the precursory stage of labor she should not confine herself to bed—not to her own bedroom, unless she desires it—but walk about a little; a certain

amount of unrest leads her from place to place and it would be most undesirable to confine her to her bed. A change of position is a good preventive or remedy for cramp of the legs or thighs, which occasionally comes on, more especially when she is restricted to one position.

SYMPTOMS AND STAGES OF LABOR.

Symptoms of Labor—The earliest is a diminution of the waist, from sinking of the child lower down in the abdomen. This subsidence of the womb gives a feeling of lightness and comfort; pressure on the chest being removed, she breathes more freely and is better able to take exercise. But occasionally this alteration in the position of the womb leads to irritability of the bladder by its pressure on that organ, giving rise to a frequent desire to urinate. After this symptom has existed for a few days, or even in some cases only a few hours, the more immediate symptoms of labor occur; these are agitation, depression of spirits, flying pains, frequent inclination to relieve the bladder and the bowels, relaxation of the external parts and a slight discharge of mucus tinged with red, technically called the "show." This latter is the most certain indication that labor has really commenced.

At this stage, sometimes shivering and sickness come on, but as they are not unfavorable symptoms they require no particular treatment, certainly not brandy, for their removal.

Stages of Labor—Labor has been divided into three stages. The *first*, in which the uterus alone acts, commences with uterine contractions, the pains being of a grinding character; the *os uteri* (mouth of the womb) gradually dilates until it is sufficiently capacious to admit the passage of the head of the child. In this stage it is not necessary for the woman to confine herself to bed; she is better walking about the room, occasionally lying down when a pain comes on. She should not on any account bear down, as some ignorant nurses advise; for before the mouth of the womb is sufficiently dilated, the child could not be born, except by rupture of the womb.

The *second* stage of labor is indicated by the pains being of a forcing, bearing-down nature; the abdominal muscles and the diaphragm assist the action of the womb, acting in an involuntary and reflex manner; this stage terminates with the birth of the child. In this stage the lady should remain on the bed. Even now she should make no voluntary efforts to bear down, especially in the absence of pain; she should keep her eyes closed to prevent injury to them during the irresistible straining which attends the expulsive pains.

The *third* stage includes the expulsion of the after-birth, which generally takes place in about fifteen or twenty minutes, or it may be a little longer, after the birth of the child.

Length of Labor—It has been laid down as a general rule, that a first labor continues six hours, and a subsequent one three hours. This calculation dates from the commencement of actual labor; if the premonitory flying-pains are included, the time would probably be doubled. The first labor of a woman who marries beyond the age of thirty usually occupies a longer time than that of one who marries a few years earlier. Subsequent labors as a rule are easier.

Tedious Labor—Here we may remark that tedious labors are as a rule natural, and by no means necessarily dangerous; on the contrary, a woman usually makes a more rapid and perfect recovery after a slow than after a quick labor. Sometimes the largeness of the head of the child, or narrowness of the outlet of the mother, is a cause of tedious labor; in such cases the head has literally to be moulded to the proper proportions before it can be born, and this process necessarily causes delay. But, except in preternatural cases, which must be conducted according to the knowledge and skill of the professional man, medical or manual interference is rarely necessary; time, patience and good management only being required to bring a natural labor to a successful issue.

Accessory Means—When the pains are flagging, friction with moderate, well directed pressure over the abdomen often stimulates the womb to increased activity. The pressure should be exerted until the placenta is detached.

PAINLESS PARTURITION.

Observation and experience have fully demonstrated that much if not all the pain and suffering commonly attendant on pregnancy and child-birth could be alleviated or entirely avoided by resort to proper methods and timely and appropriate remedial measures. Under the head "Morning Sickness— Vomiting of Pregnancy" on page 357, Mrs. Duffey refers in terms of high commendation to Dr. Holbrook's system of dieting and prescribing for the parturient woman to the end of rendering the various stages through which she has to pass as free from pain as possible. Each of them relies largely on dietetic measures to bring the patient up to that stage of strength and resolution where labor will be little more than many another natural process.

Among the remedies of paramount value for rendering child-birth less painful and tedious may be first named blue cohosh (*Caulophyllum Thalictroides*). It imparts tone and vigor to the womb. Tea made of it should be taken for the last three or four weeks of pregnancy. The dose of the tea is from one-third to two-thirds of a teacupful three times daily.

The black cohosh (*Cimicifuga Racemosa*) is in every respect equally as serviceable in facilitating child-birth and for use in leucor-

rhea and other female complaints as the preceding. The black cohosh is put up in the form of tincture and fluid extract, twenty to sixty drops of the first and a half to one teaspoonful of the latter being the dose to be given three times a day.

Some time since, the writer (Dr. Ruddock) attended a lady in her confinement whose previous labors were so difficult and tedious that the medical man engaged had always found it necessary to call in the aid of a second professional attendant. On being summoned to the labor, we administered soon after arrival, three grains of *Caulophyllum* (Blue Cohosh) (homeopathic 1x trit.), which acted most satisfactorily; the pains became regular and effective, the labor was soon completed, and our attendance did not exceed over two hours. Her previous labors always lasted twenty-four to thirty-six hours.

Painless Child-birth—*Mr. Morrison, of St. Louis, states: "The first two children my wife gave birth to she suffered almost death. Before the birth of the third one she followed the direction given in this book, and said she would not take hundreds of dollars for what she obtained for preventing the suffering she before had experienced."*

James Willis says:—My wife followed these instructions previous to the birth of her last child and the result was the child was born before she knew it." See page 384.

Take two parts in weight of slippery elm and one of flaxseed, pour boiling water over them; use as a daily drink, commencing two months before the expected period. This will abate most of the usual pain.

HOW TO ACT IN THE ABSENCE OF A PHYSICIAN.

Some labors are managed entirely by nurses who have had some preliminary training, but women generally prefer a qualified medical man, in whose care, firmness and superior ability they have greater confidence. Inasmuch, however, as labor sometimes comes on earlier than was anticipated, or its stages are gone through so rapidly as not to give sufficient time for the attendance of a medical man, it is desirable to know how to act till he arrives. Calmness, judgment, self-possession and attention to the following points, are generally all that are necessary in ordinary cases for the safety and comfort of the mother and infant, at least until the arrival of a doctor.

Birth before the Doctor's Arrival—If, when the head is born, the face gets black, the exit of the shoulders should be aided by slight traction, by means of the index finger inserted in the *axilla* (arm-pit); but on no account should the head be pulled, for dislocation of the neck might result. After this the remaining exit of the body and *nates* should not be hurried.

When the child is born, the nurse should at once remove it out

of the way of the mother's discharges, place it where it has room to breathe, and see that the mouth is not covered with clothes. The mouth should also be examined, and any mucus in it removed. At the same time it is very important to notice whether a coil of the *funis* (navel-string) be wound round the infant's neck, and if so, to instantly liberate it to prevent strangulation. If there are two or three coils, they should be loosened a little to allow the child to breathe.

To Tie the Umbilical Cord—The ligature—a piece of twine or four or five threads—should be placed about two inches from the body of the infant, and tied firmly by a double knot around the umbilical cord; two or three inches further from the body of the child a second ligature has to be similarly applied, and the cord then cut between the two ligatures with a pair of blunt-pointed scissors. The cord should not be ligatured or tied till the child has given signs of life by its cries or vigorous breathing, or until all pulsation in the cord has ceased.

The Placenta—The umbilical cord having been ligatured and divided, no attempt should be made, by pulling at it or otherwise, to remove the *placenta* (after-birth). The only justifiable interference is firm pressure and occasional friction over the region of the womb, which tends to encourage contraction of that organ, by which means detachment and expulsion of the placenta is effected. We may judge whether the placenta is detached by examining over the lower part of the abdomen, and if the womb is felt contracting and hard, like a cricket-ball, the placenta is detached.

There is one very decided way of knowing when the placenta or after-birth is detached; it is as follows: Grasp the cord in the hand and squeeze it; if pulsation is felt, separation is not complete. For this purpose one finger is not enough; the thrill is best felt through all. If the placenta be not expelled, it is in the vagina passage to the womb; two fingers may then be passed up to the insertion of the cord, where the placenta may be grasped and brought away steadily and evenly, with a spiral or twisting movement, but without using force. The spiral movement tends to overcome the pressure of the atmosphere, and also winds the membranes into a kind of rope so that they are less likely to be torn. It is by no means necessary to wait for a griping pain or two to effect the expulsion of the after-birth. Indeed, the removal is better effected before the griping pains come on.

Application of the Binder—The binder, frequently called bandage, may be made of strong linen or sheeting, about twelve inches wide and a yard and a half long, so as to include the whole of the abdomen and overlap a little. It should be applied with moderate firmness, secured by patent or safety pins and readjusted as soon as it becomes loose. The binder is useful in two respects; it favors contraction of the womb, and thus tends to obviate hemorrhage; it also aids the return of the abdomen to

its former size, and prevents the condition called "pendulous belly." The binder should be kept on for a week or ten days. It is only proper to add that medical men are not agreed as to the necessity of the binder, for while some always apply it, others discard it entirely. As, however, it can scarcely do harm if properly applied, and may prevent hemorrhage or uterine displacement, we use and also recommend its application before the patient is left.

Immediately After Labor—The first few hours after the birth of the child, should be essentially hours of repose. For an hour at least, the patient should maintain the same posture as during labor and be no more disturbed than is necessary to apply the binder, remove the soiled napkins, and render her as comfortable as the circumstances will permit. She must not on any account make the slightest exertion herself, or hemorrhage is very liable to occur. One or two hours after labor the tendency to hemorrhage is much reduced. A cup of hot tea, or a little warm arrowroot or gruel may be given her, but, except in extreme cases or under the advice of a medical man, no brandy or other stimulants should be permitted. If the patient desires to urinate soon after labor, she should do so in a lying posture, but on no account arise or sit up for that purpose, as dangerous hemorrhage might thus be occasioned. By good management and quietude for two or three hours, a little sound and refreshing sleep is usually obtained, and her exhausted energies are soon renewed. After this, should no untoward circumstances forbid, she may be changed and placed in bed, meanwhile maintaining and preserving the horizontal posture. As soon as the infant is dressed and the mother made comfortable, the child should be applied to the breast. By this means the nipple is most likely to assume the proper form, the flow of milk is facilitated and the activity thus excited in the breasts tends, by reflex action, to promote vigorous uterine contraction, and considerably reduces the danger of secondary hemorrhage. As suggested in the article on "Flooding," the nurse should examine the napkins very frequently at first, to ascertain if there be any undue hemorrhage. The labor being thus completed the windowblind should be let down, noise shut out, conversation forbidden and everything done to induce the patient to sleep, at the same time making due provision for good ventilation. As soon as the child is washed and dressed the nurse only should remain in the room.

Arnica—In order to anticipate and prevent soreness as much as possible it is well to administer arnica internally, especially when the labor has been a hard and protracted one. To be given every hour or two, for three or four times. When the after-birth has been expelled, arnica may also be applied externally to the parts by wetting a napkin with *Arnica-lotion* (twenty drops of the tincture to a tumbler of water), renewing the application as often as may be required. If the patient be liable to erysipelas, *Hamamelis (Witch-Hazel) lotion* should be used in preference.

MANAGEMENT AFTER DELIVERY.

Diet—Errors on this point have arisen from parturition having been regarded as a disease, rather than a physiological condition. Labor is emphatically a process of health, and under ordinarily favorable circumstances there is no fever or febrile reaction, or any danger of inflammation; why then should a lady be restricted to gruel or low diet for a week? Indeed, under a low diet inflammatory symptoms are liable to be called into existence, and bad matters are more readily absorbed by the uterine vessels. A good diet is the best preventive against inflammation. The diet we invariably give is nourishing, digestible, solid food from the very commencement; and we have never seen any untoward results. On the contrary, many women formerly under the care of doctors who gave only a slop-diet, have expressed to us their thankfulness for the earlier and more complete restoration to their former condition and their exemption from debility and other evils inseparable from a low diet. When a patient is delivered in the night or early morning and there are no unfavorable symptoms we allow a mutton-chop for dinner on the first day; for other meals, well-made oatmeal-porridge, cocoa or tea, cold-buttered toast or bread and butter, a breakfast-cupful of arrow-root or gruel and light farinaceous puddings, keeping constantly in view a healthy condition and regular action of the bowels.

A too exclusive use of gruel and other slops is apt to distend the stomach, produce constipation and retard the necessary changes in the womb.

FLOODING.

This is one of the most frequent and at the same time the most serious of the accidents which complicate the expulsion of the after-birth. The hemorrhage generally comes on with a rush a few minutes after the child is born, and before the placenta is expelled; occasionally it does not come on for several hours, or in rare cases even for several days.

Symptoms—The blood usually appears externally, which the physician or nurse instantly recognizes, and is sometimes so sudden and abundant as to place the lady in great danger; at other times the discharge is confined to the cavity of the womb, where it may escape detection, or be only recognized when it is difficult or impossible to remedy it. Paleness of the face, small, feeble, wiry pulse, dimness of vision, noise in the head and fainting are symptoms which accompany dangerous hemorrhage, whether the discharge be internal or external.

Remedies—1. Take oil of cinnamon, one teaspoonful; alcohol, four tablespoonfuls. Mix. Dose, half a teaspoonful every fifteen or sixty minutes, according to the urgency of the symptoms. Essence of cinnamon, as obtained at drug-stores, may be substituted for the oil and in like doses. This will almost invariably arrest the flow. In the absence of this remedy use equal parts of alum and nutmeg, as much as will lie on a ten cent piece, and repeat the dose as above.

2. If the feet are cold apply hot irons to them, but keep the body cool. In very severe cases, when it is of great importance to check the discharge speedily, plug the vagina with soft cotton cloth or an old silk handkerchief or linen, with which it must be well closed, keeping them in this situation by means of a compress and bandage. In the course of six or seven hours this plug must be removed; but in no case must it remain in the vagina longer than twenty-four hours. It must be recollected that it is exceedingly improper to employ the plug, except during the first five months of pregnancy; if used after this period, it will give rise to what is called a "concealed hemorrhage," in which the flooding continues, but does not appear externally owing to the presence of the plug which obstructs its flow.

3. When the foregoing remedies are not at hand add one-fourth of an ounce of alum to a pint of warm milk and take a tablespoonful every half hour or hour, as the necessity of the case may demand.

4. Take one part of charcoal, well powdered, and six parts of powdered white sugar; that is, in the proportion of one teaspoonful of charcoal to six of sugar, and rub them together thoroughly. In the absence of a druggist's mortar in which to prepare or rub them spend twenty or thirty minutes in grinding and mixing them together with a case-knife, on a table or some smooth surface. Then, of this, divide one teaspoonful into four equal parts, and give one of these parts for a dose and repeat every hour. This is a new remedy for flooding, and so simple that it might be rejected on that account. Yet it is invaluable for this purpose, as its use will amply demonstrate.

5. Another new remedy is a powder called bebeerine, which will have to be procured at the drug stores. Dose, one-half grain three times a day. Prof I. J. M. Goss says: "It acts with more promptness than any other article in the Materia Medica."

6. In the absence of the above remedies, use a tea of witch-hazel or beth-root, or both combined, when they can be procured. They are old remedies, but nevertheless very good ones.

Accessory Treatment—As soon as the hemorrhage occurs seize upon the soft womb through the walls of the abdomen, and constantly press upon it and knead it, as it were, for a long time or until it feels like a ball. Knead and press deeply upon the parts just above the bone at the lower part of the abdomen, whether the

womb can be distinguished at first or not. At the same time napkins, saturated with cold water, should be placed on the external parts. Small lumps of ice, when they are obtainable, may be introduced into the vagina or pushed up the rectum, to arrest hemorrhage; at the same time, small pieces of ice, in considerable quantities, should be frequently swallowed. The internal and external employment of ice in this manner will rarely fail to effect early and vigorous contraction of the womb. The patient should remain quite still, the hips being a little elevated, and the pillow removed from her head. The application of the child to the breast is also useful, as it tends to excite uterine contraction. The patient should be lightly covered, the room kept cool and a free circulation of air promoted. If the discharge has been alarming and the patient appears on the point of death she should have brandy, but slightly diluted with water, in small quantities, at frequent intervals. In this form it is the best stimulus to the heart, and less likely to excite sickness. Beef-tea or Liebig's extract of meat should be given in small but frequent quantities.

After flooding the patient is generally inclined to sleep. This tendency should not be interrupted too soon as it wonderfully recruits the exhausted powers. The patient must not, however, be left alone, and frequent examinations should be made by the attendant. If the patient sleeps, do not awake her unless symptoms of flooding come on, as suspected by the bloodless appearance of the face and indistinct, rapid pulse. The room should be kept dark, not too warm, and fresh air should be admitted, being careful not to have it pass over or upon the patient. Visitors, whispering, loud talking and unnecessary noises must on no account be allowed; the patient should be kept still and recumbent, free from noise and not allowed to talk or make the least exertion. At first, the diet should consist of light, nutritious fluids, as cold gruel, cold, boiled milk, chicken-broth, arrow-root, beef-tea, custard, calf's foot jelly, cold drinks, such as lemonade, cream of tartar or tamarinds and water, or cold water, or a few drops of elixir vitriol in a tumberful of water. If the woman is of a weakly constitution, tea or infusions of cinnamon, or any other spices may be given with great benefit.

Preventive Means—After delivery the patient should remain prone and in silence and enjoy the most absolute repose of mind and body for at least half an hour or an hour. A clean and well aired napkin should be applied to the vagina as soon after delivery as possible, and the nurse strictly enjoined to examine it at least every few minutes at first. In this way any excessive discharge will be easily detected. As before remarked, after the lapse of one or two hours the danger of hemorrhage is much reduced.

Never be alarmed, as alarm increases the patient's danger. Act coolly and deliberately, as there is very rarely any danger if the directions in this article are followed.

AFTER-PAINS.

Except after a first labor, women generally suffer from after-pains, the nature and intensity of which are much influenced by the character of the labor, and the constitutional peculiarities of the patient. After-pains are liable to increase with each succeeding labor, and unless proper treatment is adopted, the pains may be very excessive and prevent sleep. Much, however, may be done both in the way of preventing them and of moderating their violence.

Cause—Uterine contraction—After the birth of the child and the detachment and expulsion of the after birth, muscular contractions are still necessary to close the now empty womb and to reduce that organ to its natural size in the unimpregnated state. This is termed involution. After-pains are said to be often troublesome in women who have taken chloroform during labor. This, however, may be due to the severity of the pains or the pains may seem greater because they were mitigated during labor. In the latter case Dr. Ludlam recommends five drops of chloroform to be added to half a tumblerful of water, and a teaspoonful to be administered as often as the pains recur.

Remedies—1. Take a piece of the pith of prickly ash, of the size of the little finger. Steep it in half a pint of water for a few minutes, and give as soon as possible. This will generally produce immediate relief.

2. After pains may usually be relieved by applying warm fomentations to the abdomen, composed of hops and vinegar.

3. A tea, made of the bark of the root of the black haw, is excellent and will relieve promptly.

4. In pains following protracted, hard labor, arnica is very effective. Add twenty drops of the strong tincture to a teacupful of warm water. Saturate a napkin with the lotion, apply it warm to the lower part of the abdomen and cover with dry flannel to prevent too rapid evaporation.

5. Also a tea, made of the high-cranberry bark, will generally control, or relieve them sufficiently.

6. A tea made of equal parts of pleurisy-root and red-raspberry leaves, is often very effectual in removing this difficulty.

7. Hop-tea is also useful and will often afford relief and thus answer the purpose.

Various remedies are given for this affection so that if one of them is not at hand another one may be.

ABORTION (Miscarriage).

When the expulsion of the fetus occurs in the early months of pregnancy it is termed abortion, or miscarriage; after about the seventh month, premature birth. In the former—abortion or mis-

carriage—the child is not viable (capable of an independent existence); in the latter—premature birth—it is. When abortion has once occurred a predisposition to it is engendered in subsequent pregnancies, and especially at about the corresponding period; consequently, indiscretions and excesses are more likely to be fatal to natural delivery at this particular time than at any other. Abortion must be regarded as a serious evil; it not only deprives the mother of the product of her pregnancy, but often places her health and even life in peril. The subsequent evil is a source of serious apprehension, frequently involving health and happiness.

Symptoms—*Slight symptoms of miscarriage*—A feeling of indisposition to exertion, depression, weakness and uneasiness at the bottom of the back and at the lower part of the abdomen, and other symptoms resembling those which often precede menstruation.

Symptoms directly threatening miscarriage—Slight and increasing discharge of blood; cutting pains in the loins and abdomen, recurring in paroxysms and with increasing intensity.

Miscarriage—Pains, at first slight and irregular, now become severe and recur at regular intervals, with bearing-down, watery discharges and expulsion of the fetus.

Causes—The predisposing causes are—feebleness of constitution; too slight an attachment of the embryo to the womb during the early part of pregnancy; profuse menstruation; too great rigidity of the walls of the womb, which opposes the due expansion of the organ; a relaxed condition of the uterus or of its neck; long-continued leucorrhea; excessive sexual indulgence; acute diseases, particularly those of the uterus and abdominal viscera; exposure to malignant forms of disease—small pox, scarlatina, diphtheria, etc.; want of sufficient healthy exercise; late hours, as in nursing the sick, especially if combined with anxiety and unrelieved by daily recreation in the open air.

The most frequent exciting causes are the following: Overreaching, as in hanging a picture; falls and blows; taking a false step in going up or down stairs; lifting heavy weights; long walks; horseback-exercise, or riding in carriages over rough roads; climbing steep or difficult steps; dancing; excessive use of the sewing-machine; late hours; tight garments, especially such as exert undue compression upon the abdomen; indigestible food; acute diseases and inflammatory affections of the womb or adjacent organs; purgatives, especially such as operate directly upon the uterus; violent mental emotions, as care, anger, grief and fright. Also all circumstances which immediately or remotely excite abnormal contractions of the uterus.

The causes just enumerated are not usually followed by miscarriage; indeed, muscular efforts, moderately and regularly performed, are favorable to gestation. The danger arises in women who ordinarily take but little exercise, either in or out of doors, but who

under the excitement or the stimulus of unusual circumstances, do an amount or kind of work and perform feats which result in the mischief under consideration. Abortion, again, is more likely to arise from the above causes when a predisposition to it already exists, more especially at the end of the third month, or at the period corresponding to that at which it previously occurred. But the most powerful exciting cause is the recurrence of the time when, but for pregnancy, menstruation would have taken place, for at this period abortion is a hundred times more likely to occur than at any other time. To those who have aborted, therefore, the return of what would have been the monthly period is always a critical event.

Remedies—1. Any excessive flooding may be arrested by the application of cold wet cloths to the parts and over the lower parts of the bowels; cold water or vinegar and water may be used. Internally a mixture of five grains of powdered alum and one grain of grated nutmeg may be given for a dose, repeating it every thirty or sixty minutes.

2. The oil of fireweed is also valuable and may be given in doses of five drops with sugar, repeating them every twenty minutes, or at longer intervals, depending upon the urgency of the case. In many cases of an approaching abortion, but little more will be demanded than a state of quietness in the horizontal posture, having the hips elevated higher than the head and using cold lemonade.

Should the symptoms still continue, notwithstanding these measures, make a large mustard-plaster, using one teaspoonful of ground mustard to three of flour, or anything suitable to mix it with; make the plaster with the white of eggs and apply it across the back, just above the hips. Keep it on for hours, and change it every three or four hours. This will not blister, but simply keep the part stimulated and warm.

3. One of the best known remedies is the black haw (*Viburnum Prunifolium*), made into a tea by steeping the bark of the root, and taking two teaspoonfuls every half-hour or hour, until the danger is passed. It can now be obtained at most drug-stores, in fluid extract, the dose being one-half teaspoonful, every one or two hours. This will check nineteen out of twenty cases of threatened abortion and carry them safely to the full term.

4. The star-root (*Helonias Dioica*), sometimes called unicorn root or blazing star, has been employed in threatened abortion with remarkably good success. The root is the part used. Dose, half a teacupful of the infusion every hour. In urgent cases it may be repeated oftener. If the powder is used, give fifteen to twenty grains at a dose, and repeat as above, until three or four doses are taken.

5. Some physicians give one-eighth to one-sixth of a grain of morphine or one grain of opium every four hours, and tincture of

ergot, twenty drops, and the same of fluid extract of hamamelis, every hour lengthening the interval of time as indications become less violent.

Points to be remembered: Keep perfectly quiet; never rise up or get out of bed, nor even sit up in bed, when there is flowing; do not be in too much haste to walk about the room; and do not try to lift any heavy articles for weeks after leaving bed.

When the flooding is very profuse, and there is no doubt that the fetus will be expelled, the vagina may be plugged with pieces of linen or muslin and well closed up, keeping them in place by means of a compress and bandage. In the course of six hours this plug may be removed; but it must not remain in the vagina longer than twenty-four hours. By this method, the flow of blood will frequently be checked. The precautions suggested in the second paragraph of remedies under the article on "Flooding," should obtain here as the same mishap, "concealed hemorrhage" is liable to occur, under like conditions.

Let all drinks be cold, and keep the room also cool. As a drink give fifteen drops of elixir of vitriol, in a little water, five or six times daily, or lemonade; the first being the best. Keep on the mustard until all danger of abortion has ceased, which may be known by the flowing and pains having ceased. It requires from two to ten days to bring about the desired result.

The tincture of cinnamon, in this difficulty, is very valuable to aid in checking the flow and the tendency to miscarriage. It should be given in half-teaspoonful doses, every ten or twenty minutes, according to the profusion of the discharge, each dose of which may be given in about half a wine glassful of water, sweetened with loaf-sugar.

Accessory Treatment—As soon as it may be deemed prudent the patient may be allowed to lie down in a cool, well ventilated room, on a sofa or hair-mattress, and maintain that position till all symptoms of miscarriage have disappeared. Merely resting the legs and feet is quite insufficient. In cases, however, in which miscarriage is only apprehended, it is not necessary to restrict the patient wholly to the recumbent posture; gentle and moderate out of door exercise is necessary, when sufficiently recovered, but no sooner than the conditions will admit. Sexual intercourse must be avoided; also coffee, tea and other kinds of hot stimulating drinks that occasion flushings or excitement; also the circumstances tending to produce abortion, as detailed under "Causes."

After Miscarriage—When miscarriage has actually occurred, the immediate after-treatment should be the same as pointed out under "Labor." The patient should be kept in bed, and in every respect the same care observed as if she had gone through labor in due course. If the patient leaves her bed and goes about household duties before the womb has had sufficient rest and time to return to its unimpregnated size, displacement, falling of the womb and

subsequent abortions are likely to occur. Abortion and miscarriage, more frequently than natural parturition, are followed by defective uterine involution; and this is because the menstrual discharge is brought on too soon by the resumption of the duties and pleasures of life. The uncontracted womb is thus likely to become permanently over-sensitive and congested, and this condition may merge into inflammation in weakly constituted women.

General Preventive Measures—Every attention should be directed towards maintaining as vigorous a state of the constitution as possible. The diet should be good and liberal. Open-air exercise should be taken for two or three hours a day, if it can be borne without fatigue. For the bed, a hair mattress over a feather-bed is the most suitable; and cold or tepid sponging should be practiced two or three times a week. Sometimes a hip-bath should be conjoined with the sponging. The patient should sit in a bath about half filled with water, for three or four minutes. While in the bath the water should be dashed over the stomach and back with the hand or by means of a sponge. After the bath, the body should be rubbed with a large towel or sheet until reaction is thoroughly established. When there are threatenings of miscarriage, the patient must strictly confine herself to the recumbent posture, even for weeks, should it be necessary; and, especially after miscarriage has taken place, must she retain that posture as if pregnancy had gone on to full term. The uterus must have a period of rest which is as necessary after miscarriage as after an ordinary labor. Especial care and rest are necessary whenever the monthly period comes round. If this last precaution were fully acted upon, it would suffice to break what is termed the habit of aborting. In some cases abortion can only be prevented by a separation of the husband and wife for some months, during which time efforts should be made to reduce the uterus to its natural size and condition. Together with rest of the body here recommended, a quiet and tranquil state of mind should, as far as possible, be maintained.

GATHERED, OR INFLAMED BREASTS.

Causes—Exposure to cold, by not covering the breasts during nursing; especially if perspiring or if in a draft or cool place; sitting up in bed uncovered to nurse the child; too small, depressed or sore nipples, so that the breast becomes distended with milk, favoring inflammation and suppuration; efforts of the child to suck when there is no milk in the breast; strong emotions; mechanical injuries; too prolonged nursing, the abscess not appearing until a late period—the tenth to the twelfth month. Too sudden weaning, by allowing a large accumulation of milk in the breasts, and deranging the general health by the abruptness of the new condition of things, is also an

exciting cause. Tight-fitting stays, by compressing the glands, keep the breasts too hot and derange the circulation in them, and act as predisposing causes.

Symptoms—When the inflammation occurs in the tissue behind the breast, and on which it is placed, the pain is severe, throbbing, deep-seated, and increased by moving the arm and shoulder; the breast becomes swollen, red and more prominent, being pushed forward by the abcess behind. Sometimes, but less frequently, the breast itself is involved, when the pain becomes very acute and cutting, the swelling very considerable, and there is much constitutional disturbance—quick, full pulse, hot skin, thirst, head-ache, sleeplessness, etc. This variety of gathered breast is preceded by rigors (shivering fits), followed by heat, and the case should be immediately placed under the care of a medical man.

Remedies—1. Use externally the tops of poke-root, first bruising and heating them, applied in the form of a poultice. When it becomes dry, renew by a fresh one. It will relieve any case of swelled breasts. It is equally as good for "broken breasts." The root, when roasted and applied, is as good for this purpose as the tops. In chronic cases bathe the breasts with the tincture of this plant. This may be obtained at any drug-store. Also take the same internally, in five-drop doses, three times a day, until relieved.

2. Another good application is to rub together thoroughly camphor-gum and a little alcohol. To a teaspoonful of this add a tablespoonful of sweet oil, and apply freely. This is not only valuable for swelled breast, but also for any kind of swelling, bruise or pain.

3. A plaster made of bees-wax and camphor applied with vigorous rubbing to the inflamed part acts very efficiently.

4. A very excellent application to a hard, tender and inflamed breast, is a cold solution of sal-ammoniac in vinegar, adding as much of this as the vinegar will dissolve. Apply on cloths, covering them with flannel.

5. Take of

Hard soap..... 2 ounces.
Common salt..... 2 ounces.
New milk..... ½ pint.

After shaving the soap fine, put the whole of the ingredients in a vessel, and simmer them slowly over the fire for a few minutes, and while hot stir in a tablespoonful of corn-meal, and continue to simmer it until it is of the proper consistence to spread on a cloth. This quantity should cover the whole breast. After being spread the surface of the poultice should be greased and then applied to the breast as hot as can be borne.

6. Use common molasses as a liniment, three times a day, applying it to the nipple, rubbing the breasts down from that point. This remedy though simple is highly recommended by those who have used it.

7. Should these measures fail at any time to disperse or remove the swellings, and matter forms, the suppuration may be hastened by a hot elm-poultice, or a bread-and-milk poultice, placed over the breast and renewed frequently. Or, if it can be obtained, fresh poke-root may be roasted until it is soft, then mashed, mixed with an equal quantity of powdered lobelia, and sufficient hot water added, which may be applied over the breast, renewing it three times a day. When the suppuration is completed, the severe pain will be materially diminished by opening the abcess with a probe or lancet. The ulcer may be treated upon the same principle as explained under "Ulcers."

Accessory Treatment—Two or three hours after labor, sooner if there is much hemorrhage, the infant should be given the breast, but only about once in every four hours, until the supply of milk is uniformly secreted. The breasts should be supported by a broad handkerchief, or a net-work supporter, or by strips of adhesive plaster, nicely and uniformly applied, as their weight aggravates the patient's sufferings greatly; strips of plaster are also used to effect uniform compression of the glands, and thereby diminish their secretion. A linseed poultice should be applied to the part; this will allay the pain, by relieving tension and causing perspiration.

The camphorated oil or spirits of camphor, followed by dry heat, as of an iron passed close to the breast, and then enveloping the breast in cotton, should be used continuously, and renewed every twelve hours, as long as necessary. A solution of camphor and glycerine, applied over the gland by means of a flannel compress, or what is better if obtainable, a piece of oiled silk or chamois skin, is also a useful application. In extensive engorgement and induration, an opening is necessary, and should be made in the lowest situation as soon as matter is discovered. If the matter be not removed as soon as felt, it will be diffused in various directions through the breast.

It is important to remember that this difficulty is a symptom which strongly points to constitutional feebleness, indicating the necessity for pure air, sunlight, suitable bathings and nourishing diet—lightly dressed eggs, tender, lean meat, oatmeal and brown bread. By eating the latter, the patient has an advantage of the phosphorus which is contained in the covering of the grain, much of which is lost by the dressings which fine flour undergoes. The mind must be kept free from domestic worry and all kinds of care.

The preventive treatment consists in relieving the breasts as fast as they are filled; in keeping the patient warm and on good diet.

Swelled Breasts of Infants—It often happens that the breasts of a child will become caked and swollen. It is seldom necessary to resort to any other treatment than the following: Wet

a piece of brown paper with strong spirits of camphor, fold it together and lay it upon the breast or breasts, as the case may be. In forty eight hours the cake and swelling will disappear.

CHILD-BED FEVER—MILK-FEVER (Puerperal Fever.)

Causes—Instrumental or difficult labors, fetid lochia, decomposing fragments of retained placenta, violent emotional disturbances, contagion, or personal transmission of the poison from one patient to another by doctors and nurses. Other animal poisons, as that from erysipelas, scarlatina, typhus and from the post-mortem or dissecting room, are capable of exciting puerperal fever. Some learned physicians argue that atmospheric conditions sometimes exist favoring its development, seemingly epidemic in character, or it may be conveyed by the persons and dresses of the attendants of the patients, even after the exercise of great caution. The disease derives great importance both from its extreme danger and its frightfully contagious character.

Symptoms—These usually occur shortly after delivery. There are pricking sensations in the breasts, which gradually swell and harden, accompanied by a febrile action in the system, and in some cases pains in the head, scanty urine, constipation, etc.

In puerperal fever there are, in addition to the above, rigors (shivering fits), pain and great tenderness over the region of the womb; suppression of the milk (if it has been secreted at all); also a suppressed or scanty and fetid lochial discharge, scanty high colored urine, constipation, quick, sharp, irregular pulse; there are severe pains in the head, flushed face, glistening eyes and sometimes delirium; distention of the abdomen; and unless the disease is checked, typhoid or malignant symptoms rapidly supervene. This fever commonly occurs within a few days after childbirth; and it is remarkable that in most cases the patient loses all interest in the infant, and even expresses dislike to it and the husband.

Remedies—1. To control the fever and inflammation give the following: Tincture of aconite, one teaspoonful; water, one-half pint; mix. Dose, a teaspoonful every hour, as long as there is any fever or inflammation. The abdomen must be constantly fomented with hops and vinegar, or stramonium-leaves, or bags of hot tansy or smart-weed. To allay vomiting, use peppermint, anise or spear-mint-water; or perhaps a draught of soda or seidlitz water with lemon-juice. A mustard-poultice over the region of the stomach, will frequently be of service; especially will this be necessary if sickness and vomiting exist. Strong coffee, without sugar or milk, will in some cases act almost like a charm.

2. The tincture of the muriate of iron, in doses of ten drops in a wineglassful of water, repeated every hour, will generally be found

superior to every other remedy; especially if the disease be associated with erysipelas.

3. If the inflammation and soreness do not soon subside with this treatment, apply a poultice of hops and charcoal, and give freely of hop-yeast and charcoal internally.

Accessory Treatment—Frequent small draughts of cold water should be given; this relieves the thirst and promotes perspiration. Barley, milk or strong beef tea, between the doses of medicine, will help keep up the patient's strength. Hot water will relieve vomiting, but better still is a grain of sulpho-carbonate of soda dissolved in half a glassful of water; a teaspoonful every few hours. Perfect rest and quiet, with absence of all appearance of excitement or alarm in the attendant, are imperatively necessary. Occasional sponging of the body with tepid water is soothing, and if there is much abdominal swelling and tenderness, a dry, heated bran-poultice, in a bag, is the best local application. Repeated fomentations and bathing and injections of the vagina with warm flax-seed tea, adding three or four drops of carbolic acid to the quart, are valuable; indeed, if the parts were sponged with very warm water, three or four times a day, there would be fewer cases of this fever. The napkins should be frequently examined and all foul discharges effectually cleansed away and the room disinfected with carbolic acid. When the discharges are offensive, it is well to inject up the vagina some warm water, to which a few drops of carbolic acid have been added. Dr. McLeod states that he saved his own wife from a fatal termination of puerperal fever, after the physicians had expressed the opinion that she could not recover, by the injection of three drachms of Condy's fluid in a wash-basinful of water at 64 °; followed by a similar operation on the following day with two drachms of the fluid. The temperature of the room should be maintained at about 68 °, the ventilation thorough. The nursing of the child should be discontinued with the first active symptoms of fever.

When the tongue is coated brown or yellow, acid drinks should be allowed, as cider, lemonade, vinegar and water, tomato-juice sweetened, and apple-water.

In evacuating the bowels or bladder the patient should not be allowed to sit up, but must use a bed-pan or old cloths. Injections every day with flax-seed tea will be found beneficial by keeping the bowels open.

GREEN SICKNESS (Chlorosis).

This is a condition of general debility affecting young women at about the age of puberty, due probably to nervous causes and want of healthy nutrition. There is deficiency of the red corpuscles of the blood, which gives the skin a pale, yellowish or greenish and almost transparent hue. The temperature of the body is diminished

and the patient morbidly sensitive to cold. There is generally delayed, suppressed or imperfectly performed menstrual function.

Causes—Among the hygienic conditions the most favorable to the production of chlorosis are—confinement in badly ventilated or imperfectly lighted or shaded rooms; underground kitchens and back rooms, shut in by high walls excluding the direct rays of the sun and a free circulation of air; and deprivation of open-air exercise and recreation; long-continued grief, unrequited love, anxiety, fright or fatigue; masturbation; uterine or ovarian disease; innutritious food, bread and butter forming the staple diet; the relish for animal food of every kind almost completely ceases. Mothers should not hesitate to find out whether the disease may not be induced by secret habits; great delicacy and caution are required in endeavoring to obtain certainty concerning this all-important subject.

Symptoms—The following conditions are always more or less prominent; loss of appetite, which is more or less capricious, the patient often subsisting upon an incredibly small quantity of food; or the appetite is perverted, and such articles craved for as chalk, coal, cinders, etc. In other cases the appetite becomes fitful, or the patient eats simply as a duty. Most patients complain of obstinate constipation, or this condition may be alternated with relaxation. Sometimes the breath is offensive, or there may be ulceration of the stomach and persistent vomiting or even bleeding from the stomach. Such patients become listless and melancholy; they lose interest in society and in the general events of life, preferring solitude and quiet repose. There is frequently paroxysmal, often regularly periodic, headache, chiefly affecting one temple.

Treatment—Good nourishing food, including milk and milk diet, brown bread, animal broths, oysters, cod-fish and juicy varieties of meat. Frequent exercise in the open air and sunshine, avoiding fatigue; horseback exercise is particularly advantageous; bathing, particularly in sea-water, is much to be commended. Persons unaccustomed to bathe, or extremely sensitive ones, should commence with tepid water and the temperature be gradually lowered till a cold bath can be advantageously borne.

Chlorotic patients are notoriously fond of ease and desire to remain in a state of muscular inactivity; but this desire must no more be yielded to than that of travelers to the soporific effects of intense cold. They should therefore be urged and forced to exert themselves so that the blood may circulate more rapidly, and thus absorb that due quantity of oxygen which is necessary to impart to it those vital properties which excite all the organs to perform their proper functions.

It is also important, as before urged, that girls should be unobtrusively watched and not allowed, if avoidable, to remain alone.

MILIARY FEVER.

Causes—This disease in child-bed women is sometimes the effect of great costiveness during pregnancy; it may likewise be occasioned by the excessive use of green, unripe fruits, and other unwholesome things, in which pregnant women are apt to indulge. But its most general cause is indolence.

Symptoms—When this is a primary disease, it makes its attack, like most other eruptive fevers, with a slight shivering, which is succeeded by heat, loss of strength, faintness, sighing, a low, quick pulse, difficulty of breathing, with great anxiety and oppression of the breast. The patient is restless and sometimes delirious; the tongue appears white and the hands shake, with often a burning heat in the palms; and in child-bed women the milk generally goes away, and the other discharges stop.

The patient feels an itching or pricking pain under the skin, after which innumerable small pustules of a red or white color begin to appear. Upon this the symptoms generally abate, the pulse becomes more full and soft, the skin grows moister and the sweat, as the disease advances, begins to have a peculiar fetid smell; the great load on the breast and oppression of the spirits generally vanish, and the customary evacuations gradually return. Sometimes the pustules appear and vanish by turns. When that is the case there is always danger, and when they go in all of a sudden and do not appear again, the danger is very great.

Treatment—In all eruptive fevers of whatever kind the chief point is to prevent the sudden disappearing of the pustules and to promote their maturation. For this purpose the patient must be kept in such a temperature as neither to develop the eruption too fast nor to cause it to retreat prematurely. The diet and drink ought therefore to be in a moderate degree nourishing and cordial, but neither strong nor heating. The patient's chamber ought neither to be kept too hot nor cold.

The food must be weak chicken-broth with bread, panada, sago or groat-gruel, with a few grains of salt and a little sugar. Good apples roasted or boiled, with other ripe fruits of an opening, cooling nature, may be eaten. The drink must be suited to the state of the patient's strength and spirits. If these be pretty high, the drink ought to be weak, as water-gruel, balm-tea, or the following decoction: Take two ounces of the shavings of hartshorn, and the same quantity of sarsaparilla; boil them in two quarts of water; to the strained decoction add a little white sugar, and let the patient take it for his ordinary drink: or take sulphur and cream of tartar equal weights; mix, and take half a teaspoonful three times a day for a few days.

When the patient's spirits are low, and the eruption does not rise sufficiently, the drink must be a little more generous, as wine,

whey, or small negus sharpened with the juice of orange or lemon, and made stronger or weaker as circumstances may require.

Sometimes the miliary fever approaches towards a putrid nature, in which case the patient's strength must be supported with generous cordials, joined with acids; and if the degree of putrescency be great, Peruvian bark must be administered. If the head be much affected use warm water injections. This disease is of rare occurrence, and it is of such a nature that it seldom requires anything more than good nursing.

HYSTERICS (Hysteria).

This affection generally occurs in females between the ages of twelve and forty-five, and it is more frequent at menstrual periods than at other times.

Causes—The present cruel method of bringing up young ladies favors the development of the disease by rendering the whole system delicate and nervous. They are deprived to a great extent of the all-important necessaries of life, sunlight, pure air, active labor and exercise. Hot rooms, unnatural confinement in schools, crowding the intellect to the neglect of the body, solitary vice and novel-reading are among the many causes of this disease; also disappointments in love, domestic troubles, strong mental emotions and an irregular or vicious life. It is often connected with, if not caused by, spinal irritation; also by diseases and derangements of the womb.

Symptoms—This disease occurs in paroxysms or fits, which are sometimes preceded by depression of spirits, anxiety of mind, effusion of tears, difficulty of breathing, sickness at the stomach and palpitations of the heart; more usually a pain is felt on the left side with a sense of distension, advancing upward till it reaches the stomach, and thence to the throat; it occasions by its pressure a sensation as if a ball was lodged there. The disease having arrived at this height, the patient appears to be threatened with suffocation, becomes faint and is affected with stupor and insensibility, while at the same time the trunk of the body is turned to and fro, the limbs are variously agitated, wild and irregular actions take place in the alternate fits of laughter, crying and screaming and incoherent expressions are uttered, a temporary delirium prevails, and a frothy saliva is discharged from the mouth. The spasms at length abating, the woman recovers the exercise of sense and motion without any recollection of what has taken place during the fit. In some cases there is little or no convulsive movement, and the person lies for some time seemingly in a state of profound sleep, without either sense or motion.

However dreadful and alarming a hysteric fit may appear, it is seldom accompanied with danger: and the disease never terminates

fatally, unless it changes into epilepsy or mania, or the patient is in a very weak and reduced condition.

Remedies—1. Camphor is an invaluable remedy during a hysterical paroxysm and often terminates a fit immediately, especially if there is general coldness of the surface. Two drops on a piece of loaf sugar may be given every few minutes, for two or three times during the fit; or a vial of the strong tincture may be applied to the nose.

2. Peppermint is frequently useful, in some cases, to relieve flatulence and gently excite the nerves of the stomach. It may be used either in the form of the essence or a tea made of the fresh or dried herb.

3. Assafetida is a celebrated remedy in this complaint. A pill of it about the size of a small pea may be taken once or twice a day.

4. Valerian may be used, and is often productive of beneficial effects. The tincture, procurable at drug-stores, may be given in doses of one or two teaspoonfuls two or three times a day; or one or two wineglassfuls of an infusion of the root.

Accessory Treatment—During a fit, the patient's dress should be loosened, so that the circulation and respiration may be embarrassed as little as possible; cold water should be sprinkled or rather dashed over the face, the body laid in a recumbent position with the head elevated, and a current of air admitted into the apartment. The attendants may be employed in rubbing the temples, abdomen and extremities. It is usual for five or six persons to clinch the patient during a hysteric fit, and confine her to the bed or in a certain position, but this practice should be avoided. It is best to use only force sufficient to keep the patient from injuring herself or her attendants. When she suddenly rises and springs from the bed, allow as much latitude, liberty and motion to the the body and limbs as possible, or if she shows a disposition to roll upon the floor, let her roll. When called to treat the disease during the paroxysm or fit, it will be of the first and greatest importance to immerse the feet and legs in very warm water.

HYSTERICAL RETENTION OF URINE.

Treatment—Dr. J. W. Curran recommends as a simple and prompt remedy to plunge the hands in a wash-basin full of the coldest water, and move them about in it, as if in the act of washing. In every instance in which this expedient was tried it was immediately successful; it may, therefore, be recommended for general adoption as more convenient than a warm hip-bath, and infinitely more desirable than the use of the catheter. As confirmatory of this, any person may notice that the plunging of the hands into cold water, when urine has accumulated to any extent in the

bladder, is rapidly followed with an irresistible desire to urinate, although the desire to do so had not been previously felt.

After the patient's clothes are loosened, and an abundant supply of fresh air is secured, an attempt may be made to arrest the hysteric convulsions by a method suggested by Dr. Hare, viz.; that of forcibly preventing the patient from breathing for a certain time, by holding the mouth and nose. The effect of such constraint is to make the patient, when allowed to do so, draw a long breath; this vigorous inspiration being usually followed by a relaxation of the spasm and a disappearance of the fit. Prolonged attacks are notably benefited by this plan of treatment; in brief ones there is neither time nor need for it.

"A calm manner," says Dr. Reynolds, "the absence of all appearance of alarm, and of either scolding or distressing sympathy, all of which things the apparently unconscious patient observes much more accurately than do her frightened friends, will sometimes bring a fit to a speedy end."

Besides regular, out-of-door walking exercise, cheerful society, conversation and recreation, physical and mental occupation of a useful nature should be strictly enjoined. Healthy, useful employment should become a uniform habit. Absence of occupation favors that meditative mood in which hysterical patients are liable to fall, and renders cure difficult.

Removal from Home Influences—Nothing, perhaps, interposes greater obstacles to recovery than the misplaced tenderness, anxiety and sympathy of friends, talking of or about her case, and the constant recurrence of influences which tend to perpetuate the disease; so that sending the patient from home, away from her accustomed habits and associations, under the care of cheerful, kind, but judicious friends, offers a favorable chance of recovery.

Disuse of Stimulants—The daily consumption of alcoholic beverages for debility and other symptoms of hysteria is a delusion, and should be strenuously opposed. In hysteria, wine is a mocker. It yields but the semblance of strength, and instead of benefiting, it tends to confirm and perpetuate the worst symptoms of the complaint.

General Cautions—Crowded, badly ventilated and too brilliantly lighted churches, theatrical exhibitions, novel-reading, tight corsets and late hours in retiring at night and rising in the morning, should be resolutely forbidden. Diet, rest, study, recreation, as well as the various bodily functions, should receive intelligent and uniform attention. When speaking to a sufferer about her disorder, it is well to avoid the term "Hysteria," and to assure her that it is curable and not dangerous.

INFLAMMATION OF THE LABIA.

It is not uncommon for the lips of the vagina or passage to

the womb to become inflamed, red, swollen and hot; and if the inflammation is not subdued, an abscess is apt to form. This affection may be caused by the rupture of the hymen, difficult labor, exposure, or it may occur without apparent cause.

Wash the parts three or four times a day, with a weak solution of arnica; half a teaspoonful of the tincture to a teacupful of water is about the right strength.

At the same time give one drop of it on sugar, three times a day, or oftener in severe cases.

ITCHING OF THE PRIVATE PARTS (Prurítus Vulvæ).

Causes—Acrid fluids from the glands of the vulvæ or vagina; any conditions leading to congestion of the generative organs, as inactive habits, too much sitting upon warm seats such as upholstered chairs, sofas, etc., especially if combined with too high living or the use of stimulants; at times it is owing to an aphthous form of inflammation of the mucous membrane of the vagina, and may co-exist with the sore mouth which sometimes accompanies pregnancy or nursing. Worms may occasion the irritation. A want of proper cleanliness also is, no doubt, a frequent cause. Taking opium, or hydrate of chloral, has often caused it. Disorders of the digestive organs, constipation, piles, etc., are frequently associated with this condition. It is especially liable to occur in ladies who have suffered from leucorrhea or urinary troubles.

Symptoms—Itching of these parts is often one of the most distressing ailments to which pregnant women are liable. Sometimes this affection is accompanied by sexual excitement, or it may have a periodic character. It is not limited to pregnancy, and sometimes troubles the unmarried of all ages; it is most common, however, during gestation, and at the change of life.

Remedies—The itching generally indicates some disease of the womb or the mucous membrane of the vagina, or of the external parts, or the bladder. When this is the case, the malady cannot be cured without removing the cause of the disease of which it is a symptom. When it is brought on by masturbation, as it sometimes is, this habit must be broken off before a cure can be effected. Local treatment is generally necessary. Frequent and thorough ablutions of the external parts with tepid or cold water are very desirable for the comfort of the patient, and at the same time conducive to her recovery. A wash of castile-soap and warm water is often very useful. The hot sitz bath, used several times daily, during an attack, and persevered in afterwards once a day, will be found very efficient in aiding the cure, and in preventing

this troublesome affection. Temporary relief may be obtained by a solution of borax in water, applied two or three times a day to the parts. A tablespoonful of Cologne-water mixed in a teacupful of warm water, and applied directly by means of cloths saturated with the mixture, is another valuable application.

THE LOCHIA (Cleansing).

This is a natural and healthy discharge which takes place after delivery, and in color, odor and appearance at first resembles the menstrual discharge. Gradually, however, it becomes lighter, yellowish, and before its final cessation, of a greenish or whitish hue. In a majority of cases the red color changes in about a week to the yellowish shade. It varies considerably in different women, being in some thin and scanty, and continuing only a few days; and in others is so profuse as almost to amount to flooding, and lasting for weeks. The latter is most common in patients who have been troubled with too copious menstruation, who have borne many children, and who have indulged in the pleasures of the table. In some cases, too, this discharge has a disagreeable odor.

Treatment—In suppression of the lochia, flannels wrung out of hot water should be applied to the external parts, and frequently renewed, a second flannel being ready when the first is removed. Also, if necessary, vaginal injections of warm infusion of chamomile-flowers, and apply vinegar and water to the lower part of the bowels. A little salt and water is also very good. When the discharge is bright, or continues too long, the patient should retain the horizontal posture, be kept quiet and fed with suitable diet; observing strictly hygienic rules in regard to cleanliness, warm bathing, etc.

Preventives—After confinement, ablution of the parts, by means of a soft sponge and warm water, at least twice in every twenty-four hours, the parts being immediately but thoroughly dried, is essential for the health and comfort of the patient, and to prevent the discharge from becoming offensive. The napkins should be frequently changed, and always applied warm, as the application of cold might be followed by an arrest of the lochial discharge. There is decided objection in any case to the patient's sitting up in a chair the day after delivery, while the bed is made, a custom that cannot be too strongly reprehended. After several days, or sufficient contraction of the uterus has taken place, then the daily use of the chair favors the discharge of putrid, coagulated blood, and in severe cases injections may be employed to aid the evacuation. After the first day the patient may also wash herself, the exertion being helpful rather than otherwise. If the lochia be offensive, the chair should be used more frequently.

When the discharges are very offensive and putrid, add a little carbolic acid to the water which is used for the injection; say three to four drops to a pint of warm water.

TO CHECK THE FLOW OF MILK.

Remedies—1. Use camphorated-soap plaster, made as follows: Half a gill of soap; one fourth of an ounce of camphor. Pulverize the camphor-gum by adding a little alcohol or other good spirits. Mix it well with the soap and spread thinly on a soft linen cloth, and wear one piece on each breast for a day or two, or for as much of this time as the plaster can be borne without making the breast sore.

2. A wash of borax or of alum is also good for this purpose.

3. Apply a plaster made of powdered skunk-cabbage and lard. This is useful to check the flow of milk in the breasts in ordinary cases, and likewise in those of inflammation.

TO PRODUCE A FLOW OF MILK AFTER IT HAS BEEN CHECKED.

Treatment—Take, of buckwheat-flour and buttermilk, sufficient to make a stiff batter, as for pan-cakes, and keep constantly applied to the breast or breasts, as a poultice, for twenty-four or forty-eight hours. This will bring on a flow where the milk has been dried up for days.

In all cases where the flow of milk is tardy, the following plan for accelerating it will be found to be available and safe. Take a decanter and fill it with boiling water; when it is thoroughly hot, suddenly empty it and place it on the breast with the nipple in the neck of the bottle. The gradual cooling of the decanter will create a vacuum; the nipple will be gently pressed into it without pain, and the atmospheric pressure on the breast will, in almost every instance, cause the milk to flow. The experiment may safely be repeated after a short interval if it does not happen to be successful at first. Care must be taken to protect the breast by covering the mouth of the decanter with leather or thick flannel. A hole made in the center of this will keep the nipple in its proper place. All druggists keep a vacuum bottle for this purpose, which is not only more convenient but better.

When there is a lack of milk for the child, the cause may be traced to imperfection in the mother's health and measures should, if possible, be adopted to correct this, so that after a subsequent labor she may be able to furnish the infant with sufficient milk. The external application of the castor-oil plant (*Ricinus Com-*

munis) has been used by some physicians with great success. A strong decoction is applied hot by means of soft rags, and retained until the milk is secreted copiously.

Accessory Means—Warmth always favors the secretion of milk. The diet is important and should be nutritious and digestible. Good cocoa is very useful, improving the quality and increasing the quantity of the mother's milk, and we have known it to succeed after other means had failed. During the whole period of nursing, this nourishing beverage will be found highly conducive to the health of both mother and child. When the quantity of milk cannot be increased to meet the requirements of the child, mixed nursing must be adopted. It is important that the mother should suckle her baby during the day and have it fed by the bottle at night. This arrangement permits the mother to enjoy a good night's sleep, which in itself favors the secretion of milk.

INVOLUNTARY ESCAPE OF MILK.

Cause—Deficient tone in the milk ducts, which often coexists with loss of tone in the general constitution.

Remedies—Lotions of borax and alum are recommended as applications to the breast.

Accessory Means—The breasts should be sponged with equal parts of cold vinegar and water (or one part of strong acetic acid to twelve parts of cold water), morning and evening, and rapidly and carefully dried with a soft towel afterwards. To keep the dress from getting soiled nipple-glasses or rubber shells may be worn; but they should never be used, unless absolutely necessary, as they are apt to keep up, instead of diminish, the flow of milk.

NURSING SORE MOUTH.

This is an affection from which nursing women occasionally suffer. It consists of inflammation of the lining of the mouth, which is covered with very small ulcers; these cause stinging and burning sensations, and a cheese-like matter exudes from them. A profuse flow of saliva is also frequently present. Now and then it proves an intractable disorder.

Remedies—1. Make a solution of borax and water, of the following proportions: To one pint of water, add a lump of borax the size of a nutmeg, and when dissolved, gargle the throat and thoroughly wash the mouth with it, three times a day, and in severe cases, every three hours. At the same time, take the following preparation: One drachm of iodide of potash and eight tablespoonfuls of water, inclosed in a suitable bottle, and of this give one teaspoonful twice a day. One bottle will generally be sufficient to cure the disease.

2. A tea of golden seal makes another effective wash for the mouth and the throat. It should be used three or four times a day, and in an aggravated case much oftener. Petit's Canker Balsam is also an excellent remedy.

3. In very severe cases of this affection the child should be weaned, as it is almost impossible to effect a cure while it continues to nurse. If the child has the disease also, the same remedies may be given to it, in properly reduced quantities; or you may give it honey mixed with a small amount of pulverized sage leaves.

Accessory Treatment — Acidulated drinks, lemonade, hard cider and lime juice are very valuable; vegetable and animal food in due proportion, with wholesome ripe fruits, oranges, grapes, roasted apples, etc. Fruits containing vegetable acids are often alone curative, and are usually very grateful to patients. Weaning, travel, change of climate, etc., may be necessary in exceptional cases.

MILK-LEG (Phlegmasia Dolens).

A short time after child-birth this disease sometimes appears. It usually attacks one leg, and may extend to the other, and the whole system may become affected. The limb appears firm, glossy, elastic, swollen and painful. The attack is generally preceded by a chill, succeeded by fever. The affected member becomes stiff, heavy, tender, and is irritated by motion; the skin is not discolored, but has an increase of heat. After a period of about two weeks these symptoms subside, leaving the limb stiff, benumbed, heavy and weak, and very liable to remain more or less so for a great length of time. It may arise from a suppression of the lochial discharge of the milk, or from cold.

Remedies—1. The whole of the limb should be wrapped in a flannel bandage, but it should not be uncomfortably tight. It must be re-applied when it becomes loose. The whole limb should frequently be bathed in a strong solution of salt and vinegar.

2. Sometimes cold applications will answer a better purpose than warm ones. When fresh stramonium-leaves can be had, bruise, moisten with hot water and place over the whole limb. They will give speedy relief.

3. The tincture of arnica is another remedy, which has been found effectual after the subsidence of the more painful symptoms. It should be given in doses of from five to ten drops, three times a day.

4. If ulcers should form, by the breaking of the skin, they should be washed with a decoction of smart-weed, and dressed with some good salve. We would especially recommend that made of bitter-sweet and lard, as best adapted for this purpose.

5. Tincture of aconite-root is a good remedy in the early stages of this complaint. Five drops, stirred in a tumblerful of

water, and given in dessert-spoonful doses, every four hours, will tend greatly to mitigate the sufferings of the patient, promote perspiration, afford rest and facilitate recovery.

Accessory Treatment—The patient must be placed upon her back, with the swollen limb upon pillows or a bolster, raised so that the foot will be a little higher than the hips, and then charged not to put her foot down on the floor until she has very nearly recovered.

SORE NIPPLES.

During pregnancy an examination should be made to ascertain whether the nipples are of the proper size and shape, for in many instances they are deficient, or have been so thoroughly compressed by tight clothes that, after confinement, nipples can hardly be said to exist.

Remedies—1. Among the best and most effective applications for sore nipples is a teaspoonful, each, of glycerine and tannin, and apply after every nursing of the child.

2. Another excellent application is a teaspoonful of borax dissolved in half a teacupful of water, and applied as above. Alum-water is also used for the same purpose, and, when no other remedy is at hand, strong green tea may be used, which is good.

3. The oil of eggs is an admirable remedy for this purpose. It is procured by boiling eggs hard and pressing it out between two pewter plates.

The mother should always remember that after using any of the above washes, the nipple should be thoroughly washed with tepid water, or tepid milk and water, before the child is again allowed to nurse.

Accessory and Preventive Treatment—Before confinement it is well to wash the nipples several times a day with cold water or weak brandy and water, and after delivery, do not allow the child to remain long at the breast, and never for a single moment after the breast is empty. Apply the child to the breast as soon after delivery as the mother is rested, and do not wait for the filling of the breasts, when nursing will be more difficult.

Small compresses, wrung out of cold water, are very useful, especially if the nipples are sore, hot and burning. In order to prevent sore nipples, they should be washed over gently with tepid water immediately after the child has been nursed, tenderly dried by means of soft linen or a fine towel, and then dusted with superfine wheat flour or finely powdered starch. As before recommended, the entire breast should receive daily morning ablution with cold water if the patient can bear it, but if not, tepid may be used for

several times, gradually reducing it to cold. The infant should only be allowed to nurse at stated periods—say every third or fourth hour, as previously directed. The habit of permitting the infant to have the nipple almost constantly in the mouth very frequently leads to tenderness and soreness. The child's mouth should be examined to see if it is suffering from thrush.

A very simple and efficient measure to elongate the nipple is to tie a piece of woolen thr ad or yarn two or three times around its base, after having pulled i gently out with the fingers. It should be tied sufficiently tight to keep the nipple prominent, but not enough to interrupt the circulation. The woolen threads may be worn several weeks without inconvenience. The daily application of the pump to the breast, taking the nipple within its chamber and exhausting the air by withdrawing the piston, elongates the nipple The nipple should be retained within the chamber for about fifteen minutes each time. After the use of the pump, an application of arnicated water or of diluted glycerine should be made to the nipple and surrounding part, to prevent excoriations. The same result may be secured by suction, twice a day, by the nurse. An imperfectly developed nipple may be much improved by this method, if intelligently carried out. The measures adopted to elongate the nipple should be commenced two or three months before labor, and, if necessary, continued, in a modified form, during the commencement of nursing.

In some cases, if the preparatory treatment just suggested be adopted, sore nipples will be prevented. But where there is a tendency to excoriation and soreness, as in ladies of fine, sensitive skin, the nipples and the breasts should be bathed several times daily with a lotion made by adding twenty drops of the tincture of arnica to a tumblerful of water. We can testify to the entire success of this application in a very large number of cases we have treated. The lotion should be applied after each time of suckling, and the nipple moistened with saliva or mucilage before again allowing the child to nurse.

REMOVAL OF STERILITY, OR BARRENNESS.

There is perhaps no condition in the life of a married woman that more frequently gives rise to domestic unhappiness than that of sterility. If she be sterile, she will fail to secure the great purpose of marriage—to "multiply and replenish the earth." From circumstances that frequently come before us, we regard the subject as one of sufficient importance to justify the appropriation of a section to its consideration.

Causes—To determine in many cases the causes of sterility, considerable medical knowledge is necessary, and, in particular, the

anatomy and physiology of the generative organs. The application of such knowledge not infrequently enables its possessor to detect and remove causes of sterility long in existence that would otherwise have escaped observation.

The causes of sterility may be local, affecting some portion of the generative apparatus; or constitutional, the sexual functions suffering in common with those of the body generally.

The local causes are very varied, and we can only mention a few of the more prominent. Such are, an imperforate hymen, or one only so slightly perforate that effectual intercourse is prevented; narrowness or partial closure of the vagina, either as a natural defect or as the consequence of difficult labors; tumors or polypus in the uterus or vagina; closure or partial closure of the neck of the womb, after being torn, as a consequence of difficult labor; the improper use of caustics or aphrodisiacs; inflammation of the ovaries; adhesion or closing of the fallopian tubes; displacements or flexions of the womb; leucorrhea; masturbation; excessive sexual indulgences and ulceration of the womb.

Leucorrhea may exert considerable influence by diminishing susceptibility to fecundation. Functional alteration of the mucous membrane of the vagina and uterus, causing considerable excess in its acid or alkaline characters, may render the male secretion inoperative, by the destruction of its spermatozoa, the vitalizing element of the seminal fluid. When leucorrhea, however, exists to an extent sufficient to cause sterility, its influence on the general health becomes more or less apparent, and cervical hyperæmia exists to so great an extent that it can only be cured by local application in connection with constitutional treatment.

Membraneous menstruation may be a cause of barrenness in this wise: Conception may take place, but at the return of the menstrual epoch the patient experiences an abortion by the throwing off of the lining membrane of the womb (which should form the outer membrane of the fetus), and with it the ovum or egg is expelled. The cure of sterility from this cause can only be accomplished by the correction of the tendency of the lining of the womb to exfoliate (fall off).

The constitutional causes include those in which the general physical powers are exhausted, as the consequence of acute or chronic disease; obesity (excessive fat); severe, protractd or unaccustomed exertion; too close application to business or excessive exertion of the brain, thus absorbing an undue amount of nervous power, which otherwise would be more equally diffused for the efficient discharge of the general functions of the body. In this way the generative system may be impaired by the divergence of the nervous influence which its healthy functions demand. Under constitutional causes may be classed very early and very late marriages, which show a large proportion of cases of sterility.

Indolent and luxurious habits, excessive indulgence in the

pleasures of the table, and especially the free use of wine, are frequent causes of sterility. The industrious and frugal portions of the community are, it is well known, far more prolific than the higher ranks of society. In his work on the law of population, Mr. Sadler incontrovertibly proves that the fecundity of the human race is diminished by the indolent and luxurious mode of life prevalent among the rich, while it is augmented by the industrious habits and spare diet of the poor; * * * the proportionate infecundity of the two being, in general terms, as six to one. Excessive eating may cause sterility by leading to excessive accumulation of fat. There is an intimate connection between the sexual and the nutritive functions; and thus ladies, when the child-bearing period has passed, often become corpulent. Defective, or on the other hand excessive, nervous irritability may operate as an obstacle to impregnation.

We may also notice what may be termed emotional causes of sterility; and although these are probably less influential than many of the other varieties, they are still sufficient to operate prejudicially to conception. There should be the most perfect harmony and congeniality of taste, temper and disposition between the husband and the wife, the one responding to the other, without any sense of discord or feeling of repugnance.

A case is related of a lady, many years sterile, who was in the habit of using an injection of cold water after intercourse, which is a reprehensible practice and should never be used. The sudden influx of cold upon parts highly excited and most completely relaxed, is a suicidal step resulting in catarrh, congestion, inflammation, hyperæmia, paralysis of the vagina and uterus by direct influence and to the ovaries, fallopian tubes, peritoneum and nerves of the entire genitalia by contiguity and by reflex action. It should never be done, as dire calamity will surely follow its practice. On one occasion she accidentally used simply warm water instead, and conception resulted therefrom.

Another fruitful cause of barrenness is the deplorable and sometimes criminal practice of using various means to prevent conception during the early years of married life. In consequence of this, the designs of nature having been often interfered with, barrenness is at length induced, and the female now, perhaps, desirous of becoming a mother, finds when all too late, that her powers of procreation have been destroyed and she mourns in vain her early pride and folly.

Treatment—In the treatment of sterility an investigation of the cause, which is the first step towards the cure, should be made, so that if possible it may be removed. Sterility from malformation of the parts is generally incurable. On the other hand, numerous cases are exceedingly simple in their nature, and quite amenable to treatment. A temporary separation, or a change of diet, habits or climate, sometimes leads to successful results. The horti-

culturist, by transplantation to a congenial soil and climate and supplying it with altered and suitable conditions, makes a tree, which had heretofore yielded leaves only, produce blossoms and fruit. So equal care and skill in the application of physiological laws and hygienic conditions may be expected to reward the efforts of the physician to make the human species increase and multiply.

It is very certain that high living prevents conception. We seldom find a barren woman among the laboring poor, while nothing is more common among the rich and affluent. The inhabitants of every country are prolific in proportion to their poverty, and it would be an easy matter to adduce many instances of women who, by being reduced to live entirely upon milk and a vegetable diet, have conceived and brought forth children, though they never had any before.

Dr. Cheyne avers that want of children is as often the fault of the male as of the female, and strongly recommends a milk and vegetable diet to the former as well as the latter; adding that his friend Dr. Taylor, whom he calls the milk-doctor of Croydon, had brought sundry opulent families in his neighborhood, who had continued some years after marriage without progeny, to have several fine children, by keeping both parents for a considerable time to a milk and vegetable diet.

An English author gives the following in reference to the removal of barrenness: "A careful selection of the food will aid in the removal of the sterile condition. Whatever is nutritive should be preferred; food that contains a large proportion of phosphorus; fish, especially shell-fish if it can be well digested, will increase the nerve-power and aid in procreation. But, perhaps this may be better adapted to the more moderate class of livers."

LEUCORRHEA—WHITES (Fluor Albus).

The term leucorrhea literally means a white discharge—the white as opposed to a bloody one—though it is not infrequently of a light cream color, or yellow, or greenish, and includes a great variety of discharges. It is a catarrh of the vagina, neck or uterus, and the result of inflammation or irritation. In a healthy condition the mucous lining, and the various glands which stud the vaginal orifice, secrete a fluid just sufficient to lubricate the opposed surfaces, and for other physiological purposes. In unhealthy conditions this secretion becomes increased in quantity, of an altered character, and varies in color and consistence; this is termed leucorrhea.

This disease or symptom may occur at any period of life, but is most common after puberty, and previous to the cessation of the menses, when so many causes are in operation to induce free determination of the blood to the utero-genital organs.

It has been observed that leucorrheal discharge in the mother is a potent cause of scrofula in the child. The fetus is insufficiently nourished, hence the scrofulous symptoms soon show themselves in the form of convulsions, water on the brain or possibly mesenteric disease; or, if the age of puberty be reached, in consumption.

Causes—These may be constitutional or local. Anything which debilitates the constitution is liable to be accompanied by a leucorrheal discharge; thus it is frequently associated with profuse menstruation, prolonged nursing and other excessive discharges, falling of the womb, cold, congestion, scrofulous constitution, defective health generally, a warm climate, the use of purgative drugs, and inactive and luxurious life, etc. In short, leucorrhea is likely, sooner or later, to accompany any disease that enfeebles the health. Leucorrhea is very common in the rich, indolent, luxurious and dissipated, and in those who live in crowded cities; it is less frequent in those of industrious and regular habits, and in persons living in the country, especially if the soil be dry.

Local causes are; excessive sexual intercourse; masturbation; polypi, or other abnormal growths of the uterus; want of cleanliness, etc. Lastly, leucorrhea not infrequently results from irritation or disease in an adjacent part, thread-worms in the rectum, piles, stone or catarrh of the bladder, or the introduction of any irritating substance into the vaginal passage.

Symptoms—Generally, a profuse mucous discharge from the utero-vaginal lining membranes, of a white, cream-yellow or greenish color; thin and watery, or of the consistency of starch or gelatine; and it may be inodorous or fetid. When the discharge proceeds from the vagina, it is generally a light, creamy-looking fluid; in ulceration of the mouth of the womb, it is profuse and semi-purulent. That poured out by the cervical glands is a copious, tenacious, albuminous fluid; from the lining of the interior of the womb the discharge is of an alkaline reaction, copious, and generally immediately precedes menstruation. In severe cases, the whole system becomes injuriously affected; the face is pale or sallow; the functions of digestion are impaired; there are dull pains in the loins and abdomen; cold extremities; palpitation and difficult breathing after exertion; debility and loss of energy; partial or entire suppression of the menstrual flow. Sometimes the discharge is evidently in the place of menstruation. Slight cases of leucorrhea may exist for years without giving rise to any very marked symptoms.

Remedies—1. Mild cases of this disease can be cured with injections of tepid water, three times a day. If moderately cold water is more comfortable to the patient, employ it in place of the tepid.

2. Two new remedies have recently been employed for the treatment of this disease that can be relied upon, as they have not yet been known to fail to cure this disease when administered as directed. One is the yerba reuma: take, of the fluid extract of this

plant, two tablespoonfuls, and six of water; mix, and of this use as an injection one tablespoonful three times a day. The tincture may be employed in place of the fluid extract, in which case use the same quantity with water, as the above.

3. The other remedy is the Oregon grape-root (*Berberis aquifolium*), of which take two tablespoonfuls of the fluid extract and the same amount of sirup. Mix. Dose, one teaspoonful before each meal, and before retiring at night. These remedies can be procured at all drug-stores.

4. A treatment that has gained much favor lately, and which has been the means of curing many inveterate cases, is to take one gill of claret-wine, three-fourths of a pint of water and one-half an ounce of tannin. Mix. Of this, use two tablespoonfuls, as an injection, three times a day. When claret-wine cannot be obtained, use port-wine.

5. **Professor Hammon's Cure for Leucorrhea.** *Prof. Hammon says that Yarrow is an infallible remedy for the Leucorrhea, and that he has never treated a case with it but he cured. The herb grows in all parts of the country or may be obtained in drug stores.* Dose of the tea; one teacupful three times a day, of the oil, twenty drops, of the tincture, two teaspoonfuls. Use the hip bath with salt added once a day.

6. Other remedies, which have been highly commended are: injections of common tea; of a decoction of golden seal; of white-oak bark (with poppy-leaves added, when they can be obtained); also, the white pond-lily made into a decoction or tea.

7. In a work by Dr. Elisha Smith, of New York, we find the following remarks: "Peach-pits tinctured in brandy, in the proportion of four ounces to a quart, form a powerful tonic, which has been used with good success in the treatment of leucorrhea. A teaspoonful of this preparation may be taken three or four times a day."

In using any of the above remedies or injections, first wash the parts thoroughly and use the medicated injection in a lying posture. This should be retained for five or ten minutes, in order to obtain its full advantage. Many women, when directed to use an injection, do it so imperfectly, and use so small a quantity, that no good results from it.

Injections should be tepid, in all cases, unless moderately cold water is more pleasant to the patient. Women suffering with this disease should positively abstain from the use of tea and coffee, spices and all condiments, spirituous liquors and from sexual intercourse.

Accessory Treatment—There are several conditions which are absolutely essential to the successful treatment of this disease. Among the most important is rest in the horizontal posture, which is necessary in most uterine disorders. Active exercise aggravates an existing leucorrhea, just as it does congestion or inflammation of

the womb. At the same time, moderate exercise in the open air, especially in the intervals between the attacks, short of producing fatigue, is essential for the maintenance of the general health. Other accessories of importance are: a diet chosen with the view to its nourishing properties and to its ready assimilation; avoidance of indulgence in the pleasures of the table, exciting spectacles, crowded balls and parties, etc.; and lastly, frequent injections of water and daily washings, including the hip-bath, are necessary, in order to insure the most perfect cleanliness of the genital organs.

The importance of this last point cannot be too strongly stated, for without a due attention to cleanliness all other efforts may prove futile. The leucorrheal secretion is at best exceedingly irritating, but when it is permitted to accumulate and remain for a long time in contact with the mucous membrane, it becomes partially decomposed, fetid and highly pernicious to the healthy condition of the parts. On this account the frequent and thorough use of local applications of tepid or cool water should be strictly carried out. The use of the fountain syringe, having the vaginal tube attached, facilitates carrying out this part of the treatment.

In order to insure a continuous stream of water on the lower portion of the womb, and on the vaginal mucous surfaces, without any manual effort on the part of the patient, a self-acting douche has been constructed. It consists of a Japanned metal reservoir, fitted with six feet of tubing, with vaginal pipe and ivory nipple. The fountain syringe contains the principles of the above in a simple form and can easily be obtained at any drug-store. All women should have one.

The reservoir has merely to be filled and suspended above the level of the hips, when a continuous stream is obtained, the force of which is easily regulated by a stop-cock. The degree of pressure can be increased by a greater or less elevation of the tank. The cold douche, if used at all, should not be used when pregnancy is supposed to exist.

INFANTILE LEUCORRHEA.

This is catarrhal inflammation of the vulva and occurs chiefly in scrofulous children.

Causes—Sudden check of perspiration or exposure to cold, acrid urine, neglect of cleanliness, the use of infected sponges, worms, manual irritation by nurses, etc. Mr. Cooper Forster relates a case in which a woman communicated an infectious discharge to two girls by washing them with her own sponge. This case affords sufficient evidence that a woman could easily communicate it to her husband. If so communicated serious harm might ensue—divorces, broken up families, characters smirched, and no end to the wrong thus innocently produced. The attention of women is called to the great

necessity of removing the every vestige of the disease that the direst calamity that can befall a woman, the suspicion against her virtue, may not result.

Girls of all ages are liable to a discharge from the vulva, quite independently of infectious matter. The remembrance of this fact may save much distress; for the occurrence of this discharge in children has often caused unfounded suspicions and anxiety.

But the absence of swelling, heat and redness; the limitation of the discharge to the external parts and the integrity of the hymen, tend to prove that the affection has not been communicated. In infectious discharges the parts are inflamed and swollen, the inflammation extending high up in the vagina, and passing of urine causes pain.

Symptoms—Irritation of the external organs, occasioning a frequent desire to rub the parts, sometimes slight pain in urinating, and a thin, colorless or thick, creamy discharge. In unhealthy children, of bad hygienic conditions, the leucorrhea may become copious and irritating, giving rise to ulceration of the mucous membrane. The discharge is infectious, causing severe inflammation if brought in contact with the lining of the eye or other mucous surface.

Remedies—The parts should be frequently washed with tepid or cold, soft water, carefully dried and a little finely powdered starch or violet powder applied. When there is any ulceration, a lotion of marigold (*calendula*), or of golden-seal (*hydrastis*), should be used. Twenty drops of either to about half a pint of water. The diet should be good and digestible, taken regularly in three meals daily, and properly varied. Fresh air is necessary, but without too much exercise at first. Salt-baths, sea-air and cod-liver oil are often advantageous, and, in scrofulous children, essential. Impaired health being restored will often effect a cure of this difficulty.

FALLING OF THE WOMB.

Sitting or raising up soon after child-birth, and drastic cathartics, do great harm to those who are predisposed to this disease. With them the horizontal position should be retained during an unusual length of time. They should also avoid tight dressing, lifting, sweeping, running a sewing-machine, ironing, over-exertion and long walks, at all times. Pessaries and supporters are merely palliative, and often injure by weakening, relaxing and irritating the parts and the abdominal and other muscles. They should rarely, if ever, be worn, as they never cure. For the cure of falling of the womb, we will allude to a few only of the movements which are useful. The patient may lie on her back, and while one assistant takes hold of her hands and another of her feet, they may

slowly stretch her, and, if she is not too weak, she may resist. The same may be done while she is lying on her face, the assistant gradually raising her feet as she draws. This tends to raise the ribs, enlarge the abdominal cavity and cause a flow of blood to the extremities. Let the patient lie on her face, resting the entire weight of her body on her toes and elbows, and gradually raise and lower her hips several times. If the patient is too weak to do this, an assistant may support part of the weight, and thus assist her. These simple exercises, practiced for a short time, two or three times a day, are worth more for the radical cure of falling of the womb than all the supporters ever invented. Let the patient lie on her back, with her hips elevated and her knees drawn up; then let an assistant repeatedly draw her knees apart, the patient resisting; then let the patient bring them together, the assistant resisting. All the above exercises are taken in the horizontal position, and tend to restore the womb to its natural place and to strengthen the muscles and parts which should retain it in its true position. Persevere in such exercises until cured.

Causes—Probably the most frequent cause is getting up too soon after child-birth, when the womb is larger than usual, and when also its perineal support below has been weakened by the process of parturition. Dislocation of the uterus may, however, take place at puberty, especially if menstruation begins at too early or too late a period, the increased weight of the congested organ predisposing to prolapsus. Occupations such as those of laundresses, cooks, etc., are fruitful causes, especially if followed when the womb is relaxed or large. In other cases, one of the following causes may have been in operation: sexual excesses, injuries from falls, sudden straining, jumping, over-lifting, etc.; long-continued coughs, excessive vomiting, chronic indigestion, constipation or piles; tight lacing, a general relaxed condition of the system, either constitutional or the result of sedentary habits, too high living, purgatives, etc. Thus it will be observed that the essential elements in prolapsus are an enlarged, heavy womb, relaxation and weakening of its natural supports, combined generally with too much standing.

Symptoms—Bearing-down sensations in the vagina; dragging and aching pains in the small of the back and around the loins and hips; frequent sensation as if something would escape from the vagina; weariness, soreness and faintness, with indisposition to stand; leucorrheal discharge, often increased menstruation, and frequent desire and sometimes inability to pass water; nervousness, irritability of temper, indigestion, constipation, etc.

Remedies. 1. Dr. Elizabeth Briggs' cure for Falling of the Womb. *She says, "I always cure this affliction with the simple remedy of alum, as follows:* To a pint of tepid water add one and a half teaspoonfuls of pulverized alum; use as an injection twice a day. The salt water sponge bath must be used at least once a day to the lower part of the body and

thighs. Accompany this with friction and kneading of the lowet part of the bowels. If this treatment is perseveringly followed and the patient, at the same time, confines herself to the recumbent posture on the bed, an effectual cure will be accomplished."

2. This difficulty can frequently be removed by the simple use of injections of tepid flax-seed tea, three or four times a day.

3. The following is a good remedy for the same purpose: To one pint of warm water add twenty drops of tincture of aconite root. Mix, and inject into the vagina three times a day. This, in severe cases, is a valuable means of reducing the inflammation and restoring the organs to their natural condition.

4. Equal parts of peach-leaves, Solomon's seal and hops, in an infusion, form an excellent remedial injection. So also does elm-bark and stramonium-leaves.

5. For falling of the womb, the unicorn-root or star-root (*Alteris Farinosa*), has been used very successfully. Dose, of the tea or decoction, half a teacupful three times a day.

6. Electricity is a very excellent agent in the treatment of this disease, and, when coupled with the use of black cohosh and nux vomica, the most inveterate cases have been cured with it. These are to be taken in the following manner: Add five drops of nux vomica tincture to a tumblerful of water. Mix well. Dose, two teaspoonfuls at night. Then prepare the tincture of cohosh in the same manner, and take like doses every morning.

7. Put a half ounce of beaver castor in a half pint of gin. Take one dessertspoonful three times a day. Some of the worst cases of this affliction have been cured with this remedy in a few weeks.

PERINEAL SUPPORTER.

For further remedies used in the removal of this disease, the reader is referred to the treatment under "Leucorrhea," as the remedies employed in the latter affection are useful in the cure of falling of the womb.

For the purpose of aiding a permanent cure, and relieving the

unpleasant symptoms that attend the displacement of the womb, a properly adjusted perineal supporter will be found an excellent means. This consists of a well fitted abdominal bandage or jacket, made of drilling, lacing up in front like a corset, putting in whalebone in front and behind to keep it from wrinkling; sew on buttons before and behind, six inches apart, to attach the perineal bands, which may be made of drilling, but good, strong elastic suspenders are better. Lace the bandage on, buttoning the suspenders on behind; bring them between the thighs, and button them sufficiently tight in front. Immediately under the perineum where these straps cross, a perineal pad is attached, which passes upward between the vagina before and the bowel behind, and furnishes a constant and efficient support. This pad may be made about two inches square and half an inch thick, and covered with oil-cloth to protect it from the discharges.

Accessory Treatment—The horizontal posture, with the hips elevated, often suffices to cause the womb to return to its proper place, where it will remain if the patient can retain that position. This posture should therefore be maintained as long as is consistent with the general health, especially during the monthly period. It is not, however, desirable or practicable for women to remain long in bed. Exercise is necessary for health, and the industrious portions of the community are compelled to work and walk daily.

The use of appropriate baths, followed by general friction of the skin, injections of water, or in some cases of astringent fluids, by means of a large-sized, gum-elastic vaginal tube, attached to a proper syringe so as to insure a good and continuous stream of water reaching up to the lower portion of the womb, and the daily use of the hip-bath, are remedial agents whose great value is authenticated by long practice.

In severe forms of falling of the womb a good pessary, accurately adapted to the size of the vagina, may be used with temporary advantage, if properly applied and not worn too long. Its use is simply palliative and not curative. Its injudicious and continuous use aggravates the mischief. A medical man should always be consulted in its use.

Violent exercise, lifting heavy weights, scrubbing, running a sewing-machine, sweeping, ironing, straining at stool or sittting too long in a constrained posture, must be avoided. Brown bread, vegetables, etc., should be taken to prevent constipation.

INFLAMMATION OF THE WOMB (Metritis).

This affection may occur in any adult female, and is an occasional serious complication of pregnancy, or of child-birth. The disease may be acute or chronic; the cervix is the part generally involved.

and the ultimate tendency of inflammation of the deeper tissues of the womb is towards ulceration.

Causes—Exposure to cold; sitting or standing on damp grass, etc.; suppression of the menses; mechanical irritation, as from excessive coition, tumors, etc.

Symptoms—An attack may commence with a chill, followed by febrile symptoms—full, jerking pulse, great thirst, nausea and vomiting, and sometimes diarrhea with straining; the bladder is irritable, and there is a feeling of throbbing in the vicinity of the womb, which is swollen and painful. The precise seat of pain depends upon what part, or whether the whole of the womb is involved. There are throbbings, irritability of the bladder and rectum, and the patient maintains the recumbent posture, as sitting aggravates the pains. Sometimes the disease assumes a typhoid character, and there are excessive prostration and a dirty, yellow-coated, dry tongue.

Remedies—1. If the bowels are much constipated, give repeated injections of warm water, with a little lard and salt dissolved in it. Apply to the lower part of the bowels hot fomentations of hops and vinegar, or some bitter herb. Or, apply a mush-poultice, made of corn-meal. They must be frequently changed, in order to keep the bowels continually hot. The rubber hot-water-bag is very convenient and effective, as it retains the heat longer and can be used without soiling or wetting the surrounding garments. The common smart-weed is an excellent article in this disease, used as a fomentation and frequently renewed.

2. When there are irritating and offensive discharges, cleanse the parts with injections of warm water; and, when they can be procured, make a tea of peach leaves or of wild indigo. It should be used warm.

3. In severe cases, add a teaspoonful of chloride of lime to a quart of water, and after it is dissolved use as an injection, two or three times a day, several injections at each time. The solution should be made tepid before using.

4. If the urine is high-colored, give the patient, every two hours, a teaspoonful of sweet spirits of nitre, in a little spearmint-tea or water.

5. When the above is not at hand, either of the following is good: a tea made of marshmallow, mullein, pumpkin-seeds, or flax-seed.

6. Take juice of spearmint, made by bruising the green mint, and add as much spirits of nitre; give a teaspoonful every three hours. This has cured many cases, and is an excellent remedy.

Accessory Treatment—Rest, as complete as possible, is very important. Food must be reduced to almost an entire abstinence, and no stimulants whatever must be taken.

The room must be well ventilated and kept still. The patient should lie upon the back.

A new remedy.—Cocoa butter, four and one-half ounces, boracic acid, one-half ounce, made into forty suppositories by the druggist. Insert one in the vagina on retiring at night. Or, if preferred, the preparation may be left in bulk, and insert as above a portion about half the size of a nutmeg. This will also regulate the menses.

ULCERATION OF THE WOMB.

When excoriation or ulceration of the neck of the womb occurs there are often pains, soreness and a sensation of rawness, with perhaps heat and smarting in that region. Pain in the right side of the abdomen, and pain in the back of the head, and in the back part of the top of the head, with a numb sensation, are common symptoms which attend uterine congestion and ulceration. Leucorrhea may exist without ulceration, or even much if any inflammation, but the latter affections rarely occur without causing more or less discharge.

Remedies—1. Ordinarily, a solution of alum will effect a cure, when used in the following manner: Take two heaping teaspoonfuls of powdered alum; divide into six equal parts, and add one part of this to one pint of water—soft water when it can be procured—and use it warm as an injection at least twice a day.

2. In severe cases, take two teaspoonfuls of alum and one-half teaspoonful of white vitriol; divide into six equal parts, and use one of these parts in a pint of water. To be employed as an injection twice a day.

3. This disease can be cured by simply applying powdered tannic acid or tannin to the ulcers.

4. Oak-bark possesses similar medical properties to tannic acid, and is frequently employed in the place of it, by making a weak decoction and using as an injection, night and morning.

5. Golden Seal (*Yellow Puccoon Root*) has been efficaciously used in curing this disease. A decoction of it should be used as an injection, twice a day.

6. The white pond-lily (*Nymphæ Odorata*) has proved an efficacious remedy in this disease, having cured it after all other available means had failed. It should be used locally, by injection of the infusion into the neck of the womb, and by taking it internally. Dose, of the infusion, from one-half to a teacupful, two or three times a day; of the fluid extract, ten to fifteen drops, morning and evening.

Before any of these injections are employed, the patient must use an injection of warm or cold water, whichever feels best; and in addition to this, we ought to say, that these water-injections must be used every two hours during the day, if a cure is expected, in case there is much discharge.

DIVISION SEVEN

DISEASES OF CHILDREN.

THE RESPONSIBILITY OF PARENTS FOR THE SICKNESS AND DEATH OF THEIR CHILDREN.

That one half of the children born into the world die during childhood, and nearly all of that proportion are consigned to premature graves through the neglect and inexcusable ignorance of their parents, are facts too well established to admit of controversy. Except in hereditary cases, sickly and diseased children should be a constant reproach to the parents; even criminal punishment is sometimes justly merited, for anyone who will become a parent and be instrumental through neglect and culpable ignorance in causing the child to suffer in its helpless infancy the pains of disease, deserves something more than mere censure. No one can hold himself blameless, or seek a shield from the obloquy which should rest upon him for such dereliction of duty, by pleading ignorance, for the sources of information are now too manifold and too easy of access to permit such a plea to be accepted. All may read and readily learn how to obviate the ills to which children are subject, or to bring timely alleviation; and the idea that disease or premature death are necessary parts of nature's processes, to be accepted without question or remark, is an exploded notion of the past, and not entitled to serious consideration.

PHYSICAL AND MENTAL TRAINING OF CHILDREN.

Men are usually educated and trained for the avocations they are to follow in life. If then it is important and desirable to fit them for their life-duties, it is equally so to have women qualified and prepared for the difficult task of managing and rearing children to which most of their lives are dedicated. Yet too many women begin the exercise of these most difficult and intricate duties—the physical and mental training of their children—with scarcely any knowledge of, or preparation for, the important cares devolving upon them; and it is a source of regret that, when thus started, a

vast number continue to plod on as they began, and attain little more proficiency in knowledge on this subject than an unlettered and untutored savage; justly earning that oft-repeated though inelegant criticism that they are "not fit to raise a papoose." This want of qualification, this ignorance and neglect, are the prime causes of so much sickness, disease and death among children, and of the existence of many intellectual dwarfs and imbeciles throughout the country, as well as an army of ill-bred children and hoodlums. Experience has shown that no investment of time and money is more certain to bring a rich return than that devoted to the acquirement of knowledge for the physical and mental training of children. Yet we find not a few families without a single book or scrap of literature on this subject, and meet individuals who say, "We have raised children, and are still raising them, and therefore know all about these things." To such we would reply that books are not written and information collected and imparted for those who know enough without learning more, and are too wise to be taught. On observation, it will be found that those identical individuals are only bundles of self-conceit and monuments of stupidity, incapable of appreciating the value and importance of the knowledge placed within their reach.

SPECIAL DIRECTIONS TO MOTHERS IN REGARD TO CHILDREN.

The following very important rules should be adopted by every mother in regard to children at meal-times and at bed-times:

After the company and adults of the family have eaten, the mother should summon her children to the table, personally superintend their meals, and especially see that nothing is eaten or drunk that is indigestible or injurious. During this supervision she can teach them how to behave properly at the table. There are several objections to taking children to the table with company until such time as they shall have been thoroughly trained, for the reasons that:

First, they are very likely to be given more or less improper food, often merely to keep them quiet.

Second, they become imperious and forward, with a tendency to self-conceit.

Third, the practice fosters ill manners, for mothers rarely attempt to teach their children manners in the presence of company.

We have heard it said, "But Mrs. ——— takes her children to the table at all times and under all circumstances, and yet they are models of propriety and exemplary conduct." Admitted; but that is the exception and not the rule, for where there is one case of this kind, there are a dozen that are otherwise.

Preparing Children for Bed—This should be done from six to seven o'clock; and as they approach their teens, one hour

later; and it should be done promptly, and with strict regularity. A most reprehensible practice is that of putting children to bed at six o'clock one night, and the next perhaps at seven or eight.

The preparation consists mainly in seeing that their feet are washed and thoroughly dried—in the summer every night, in the winter every other night; their teeth cleansed every night with a brush, and their clothing changed, as no article of clothing should be worn at night that is worn during the day.

And the mother, before retiring, should visit the children to see that they are properly covered and that the doors and windows are sufficiently open for ventilation, without exposure to direct air draughts.

These are no minor matters among the duties devolving on mothers; and when they know the importance and are yet neglectful of them, they are deserving of as much condemnation as the husband who fails to provide for the family.

What Mothers Know—There are various sections in this book pertaining to children and their diseases which should be read and re-read by every mother, but far too many are impressed with their own capacity and think they know enough on this subject without thus reading, from the fact that they "have raised children," or their mothers have, and hence they "know more about it than the man who wrote the book." They really know just enough to destroy the lives of one-half of their children, and render the other half more or less diseased or sickly. And this is the result, excepting in cases of contagious diseases, of the alleged superior knowledge that they claim to possess and exercise. The facts should excite a blush of shame.

Moreover, if there were as much knowledge possessed on this subject as there might be, they would not be ignorant of the fact that the information usually presented in a medical book is not simply the knowledge and experience of one individual physician, but the combined wisdom of various ones, often of different countries and of different periods of time. Useful and practical directions in regard to management of children will be found in another division of this book.

CLOTHING OF CHILDREN.

White flannel of the softest texture should constitute the underclothing of children, and not only their bodies but their limbs should be protected by the same material. But flannel, even of a fine quality, may often be too irritating if worn next to the skin. In such cases use fine linen or cotton under the flannel to protect the skin. Another reason for using linen or cotton next the skin is that flannel cannot be washed so often without injury, and there is also danger that, as it does not show the dirt so quickly, it may be worn too long. Linen and cotton receive little harm from frequent

washings. Some children are so constituted that they cannot endure woolen clothing during the hot days of summer. You should therefore look well to this matter; remove such clothing during that time, and replace it by soft linen or cotton. Another idea of importance should be noted here; tight clothing should not be permitted to be worn by children of any age. Particular attention is directed to this subject, and it should not be neglected. The tight bands sometimes fastened around the bodies of young infants are an outrage to humanity and in direct conflict with the commonest principles of prudence, reason and good sense. All confinement produces distress, and when in the nature of compression is liable to induce deformity and other and still more serious injuries to health, even before the presence of the evil is suspected. Hernia or rupture not infrequently results from tight dressing. If the bowels are pressed too tightly, Nature, in her effort to find room for them, will press them out through the least protected part of the abdomen, as the navel or groin. Space should be allowed for the growth which is continually and rapidly going on. For this purpose, every article of dress should be fastened with strings; and in tying these, exercise great care not to draw them too tightly. They are greatly to be preferred to buttons or hooks-and-eyes. These last possess but one advantage—that of putting it out of the power of the hasty or negligent nurse to arrange the dress too tightly, as may happen when strings are used. The growth of the infant is very rapid during the first two years of its existence. It can be easily understood that a few weeks may make considerable difference as to size, so that a tight garment may produce much pressure and consequent distress. It would seem a sufficient exhibition of vanity and folly for adult people to torture themselves and thereby impair the natural beauty and symmetry of the bodies that kind Nature had given them, ruin their health and shorten their days by girting themselves in their dress to the size of dwarfs and the shape of wasps, without inflicting such punishment and entailing permanent injury on the young and helpless innocents.

Fashion to be Disregarded—Fashion should be disregarded in the dress of children and nothing thought of not dictated by convenience, comfort and common sense. The fashion of long clothes, such for instance as measure a yard or more, is both useless and expensive, besides encumbering, overweighing and restraining the free movement of the child. There need be no more length than is necessary to cover the feet, so that the cold will not get under the clothes. As to the underclothing, it should not, in health, be changed oftener than once in two or three days, as frequent changes withdraw too much electricity from the system. The clothing of their beds should be well aired each day, to avoid any danger of engendering disease. The clothing for the body, particularly the flannels, should be aired before the fire previous to being put on.

Cleanliness—A child should not be permitted to wear a diaper for one moment after it becomes wet, as it is both unhealthy and uncleanly. You have not done your duty to your child when, at such a time, you simply dry the diaper and imagine it is then fit to be replaced. It should be used but once, and then washed and made perfectly clean; otherwise serious consequences may result.

Use only safety pins, buttons or strings as fastenings for the clothing of your children; never ordinary pins under any circumstances.

The Band, and Dressing the Navel—One of the most important parts of an infant's clothing is a band to support the abdomen. This should be made of soft flannel, or of some other elastic material; that is, something that will stretch. It is especially intended to support the navel. The cord is usually divided, at birth, about three inches from the abdomen of the child, close to which it is securely tied. The separation of the remaining portion is the work of nature, and is effected in from five to fifteen days. In ordinary cases, as soon as the separation has taken place, a split raisin and a piece of singed linen should be applied to the part, and changed daily. It occasionally happens that after a few weeks the navel starts; in such a case, a common ball of sewing-cotton, half used, so that what remains is soft and yielding should be laid upon the navel, and confined by strips of strapping-plaster, placed crosswise. If anything more serious appear, such as redness, ulceration, discharge, etc., medical advice is immediately necessary.

In putting on the band, it must be remembered that there is a wide distinction between a tight band and a band only for support. The former is dangerous, while the latter is a necessity.

If the cavity of the abdomen be diminished, its contents are compressed, and when any action that strains the parts takes place there is no room for the necessary expansion, the weakest point yields and rupture results. The action of the bowels is also impeded by compression, occasioning pain and constipation. Medical writers dwell upon the importance of the band and decide that rupture is frequently the consequence of neglect or ignorance in regulating its use. It needs to be taken off and re-arranged morning and night, and a clean one put on every other day, as it gets wrinkled, and thus unfitted for use. It often becomes wet and is then likely to create pain and disturbance of the bowels, for which reason the same band should not be worn both day and night.

How Long to Retain the Band Upon an Infant—A month is sufficiently long for a healthy infant to wear its band. If it is taken off in cool or cold weather, flannel shirts should be at once put upon the child, so that it will feel no evil effects from its removal.

With some children the band is necessary for many months; when it is discontinued the stay or waistcoat, usually worn as a sort of

support to the rest of the clothing, should reach two inches below the navel; it prevents an enlargement of the abdomen and sustains the child in its attempt to sit up.

Warm Clothing—Warmth is of prime importance for children of all ages, and especially so for newly born infants. Warm clothing should cover the whole body. But in hot weather it is of equal importance to keep children cool, for diarrhea and other summer-complaints may be thus to a great extent avoided. Excess of clothing, night or day, is to be guarded against.

In this country, where changes of temperature are sudden and continual, judicious clothing is especially necessary; summer apparel cannot be safely adopted and laid aside at fixed times, nor can the same dress be always worn at noon and in the evening. However warm the clothing, infants should not be carried abroad in cold weather; their lungs cannot bear a low temperature, and they have no exercise to keep the blood equally distributed. Where ventilation is attended to, no other change of air is wanted than may be obtained by moving from room to room. An infant usually falls asleep when carried abroad; cold air increases the disposition to sleep and renders it dangerous, while no good can be derived from the out-door air, since common prudence dictates that the whole person must be completely enveloped. If carried about a well-ventilated room, in a moderate temperature, the child breathes freely and without risk. No child can be taken into the open air in very cold weather with safety, until it is able to take enough exercise to keep the blood at the surface. Before this the quantity of necessary clothing impedes activity. This, with the state of the air, benumbs the limbs; the blood is driven from the surface and loads the lungs, stomach and brain, etc.; the child returns home, is brought suddenly into a room with a fire, and probably close to the grate; violent reaction follows; the harmony of the system is disturbed and the functions undergo serious interference. The daily repetition of the disturbance tries the strongest constitutions severely, and, where there is predisposition to disease, active disorders follow. It is much better to put a child into a swing, toss him about or encourage him to use his voice, throw a ball along the floor and let him creep or run after it; all of which, and much more, may be done in a room properly warmed and ventilated.

WASHING AND BATHING.

Frequent bathing is not only conducive to health and cleanliness, but much suffering often comes from the want of it; and in many diseases there is no remedy equal to the water-bath. Yet not infrequently health is impaired and lives lost in consequence of its injudicious use. There are mothers who plunge their children into the bath-tub daily, seemingly without regard to the dangerous con-

sequences it is gradually producing—undermining their constitutions and rapidly bringing them to premature graves, while the only reason for doing so may be that some of their neighbors or friends thus treat their children, and with apparent safety and advantage.

A child with a strong constitution may endure and even thrive under these daily bathings, but the majority are seriously injured by them. In regard to their proper frequency there can be no fixed rule given, as every case must be regulated by observation of the effect produced. It can be said, however, that most children may be bathed twice a week in summer and once in winter; and the baths should always be of tepid water, unless it is learned from experience that cold water is more agreeable to the child, as well as more invigorating. The bath should be given between nine o'clock in the morning and noon. Sponge baths are much less debilitating than those in tubs, and may be given daily without danger, except in special cases.

PURE AIR.

Above all things give your children abundance of pure air. There is more disease and death among children from breathing impure air in badly ventilated rooms than from any other single cause. The ventilation is usually worse in the bed-room where of all places it is most important that the air should be pure. To properly ventilate a bed room, or any other for that matter, it is necessary to provide both a way for the pure air to get in and for the bad air to get out. This is very commonly forgotten, and people open a single window a few inches and think that the end is secured. It may indeed happen that a lively wind will find its way in under such circumstances, but it is always better to have two openings if they can be arranged without making a draught directly upon the sleepers. If no other way offers, a window open at both top and bottom will allow the air to change a great deal, as it naturally comes in at the bottom and goes out at the top. Where there is a fire-place in the room that alone effects a great deal of ventilation, and in cold weather may be sufficient to keep the air in a room reasonably good. But it is undeniably true that the great majority of people have a fear of pure air which is little short of insanity—not a fear of draughts, for they do mischief as everybody knows, but of pure air let into a house in a proper way. This matter is especially important to children, because they are at once more susceptible to the evil effects of bad air than adults and more exposed to it from being closely confined to the house. No one who has studied this subject doubts that a great and general reform is imperatively needed, and that among all classes, high and low, rich and poor, in town and country. How much of peevishness, bad temper,

sickness and death among children is directly due to the want of good air no man can tell, but unquestionably the amount is frightful. The effect of the evil is in most cases of mysterious appearance to those who have not given great thought to the matter, and so the mischief goes on unchecked. If once its magnitude could be realized, however, there is no doubt that the plain and easy remedy would be promptly applied, and just as little doubt that the fearful death rate among the innocents would be very greatly reduced.

A word should be said as to the danger of crowding too many persons into one room. The more occupants there are of course the greater the difficulty of getting proper ventilation, and in fact a great majority of sleeping rooms as now made should have but one person in them. A great many are never fit for even one to sleep in and never can be; but cases of this kind are confined mostly to the cities.

SLEEP OF INFANTS.

Regularity—They should be fed and put to bed at stated hours, as regularity is of the greatest importance in all matters pertaining to children.

No Rocking—When the time for sleep arrives, infants should be placed directly in their cots awake; the unnecessary and objectionable habit of rocking or nursing them to sleep in the arms should never be formed. Neither should ordinary walking about, speaking or other common sounds be avoided, but the infant should be accustomed to sleep with the usual affairs of the house undisturbed.

Sleeping Medicines—All the so-called soothing remedies, sirups, cordials, spirits or sleeping drops, should be strictly avoided, as they all contain more or less opium in some of its forms. These sleeping mixtures do incalculable harm to the health, and largely swell the list of deaths in childhood.

Ventilation—Pure, fresh air is of the highest importance to children while asleep. Nurseries should be as spacious and airy as possible. The practice of shutting bed-room doors is objectionable, if the children can be protected from draughts when they are open.

It seems hardly necessary to repeat the injunction that no child of any age should ever sleep with an adult. The mother should place her infant in a crib or bed, by the side of her own, and where she can easily reach it. Place it on its right side and make an occasional change of its position during the night; and do not fail to do this during the day as well as at night. These changes prevent cramping and rest the child. Infants are often cruelly treated, in this respect, by the thoughtless and negligent. On laying an infant down it should be ascertained that the feet and hands are comfortably warm, that every part of the body is supported, and that the

limbs are not in a position to be cramped. It is best not to take up a child the instant it wakes, particularly if it has not been asleep long, nor if it cries on being laid down. Change of position, a drink of water, gentle rocking or slight patting on the back should be tried. Food and change of diapers are needful at night. These should be attended to very quietly. After the first three or four months the child, suckled when the mother retires at night, will, if the management has been judicious, wake but once until morning. To bring this about it should be allowed to nurse but once, and even that be discontinued as soon as practicable. Never keep a child awake when tired, under the idea that it will rest better at night. Over-fatigue produces irritability, pain in the limbs and restlessness.

Beds—It is impossible to overestimate the importance of good beds, well and properly cared for. The duty of regularly and thoroughly airing children's beds, especially, is habitually and very sadly neglected. Immediately on the child's rising, every morning, the bed-clothing should be thrown back and left to dry and air for some time before the bed is made.

CRADLE BEDS.

The clothing of these should be perfectly clean and free from all offensive odor. It is a shame and disgrace, as well as an unkindness and cruelty to the child, to permit, as some do, the clothing of the cradle-bed to become saturated with urine and be but partially dried again and again, until it emits a horrible stench, and the infant be obliged to constantly breathe this intolerable odor. And to add to all this, the poor babe is not infrequently permitted to go to sleep wet and filthy and remain in this condition for a whole night. With such facts of neglect in view, to say nothing of the evils of positive abuse which are practiced among the lower classes, it certainly does not seem strange that there is so much sickness among children. And there would be even more pale, puny and sickly children, and many more of the sad little funerals, did not so many of them inherit constitutions which are hardy and apparently absolute proof against poison.

GENERAL MEASURES FOR THE CARE OF CHILDREN.

Crying—Mothers and nurses should pay strict attention to the plaintive cries of their infants. By so doing they may be able to trace the first cause of illness, for an infant will never cry if it is in health and at ease. If it does, there is little doubt that the nurse has neglected her duty.

Gentle Treatment—Allow no harsh or impetuous treatment of young children, either by scolding or striking them. And never provoke them to violent laughter, as it is likely to result in a fit or spasm; or it may produce rupture. Neither ought you to toss them in your arms over your head. Never expose the eyes of a child to the rays of the sun, or any other glaring light.

Frightening Children—Never, if it is possible to prevent it, permit your child to be frightened by any unusual noise or sight, and if, by accident or otherwise, it has been thus exposed, take care that there shall be no repetition of it, as the child becomes more susceptible to fright at each succeeding alarm.

Ghost Stories—Do not in any way play with the fears of children, or be guilty of telling "ghost stories" or allowing others to do so, nor of saying to them, for instance, to keep them from doing some particular thing, that the "Black Man" will catch them.

Dark Rooms as Places of Punishment—A child should never be forced into a dark room, when it is afraid to go. Besides being cruel, this is liable to produce serious results on the nervous system. A most reprehensible act is to shut a child in a dark room or closet as punishment for faults. Deplorable and sometimes dangerous consequences have followed, involving even the life of the child.

"Hush Up"—Parents should not be guilty of punishing a child for an offense and then hush up suddenly by threats its cryings and sobbings, which are the natural outbursts of its little heart.

Day and Night Clothing—Never permit your child to wear any articles of clothing at night which it wears during the day, nor to sleep the second time, if it is sick and feverish, in unchanged sheets.

Rubbing—When your child is young, rub its body night and morning with your hand. Friction promotes the circulation of the blood, invigorates the skin and thereby strengthens the child.

CROUP (Trachitis).

Causes—This disease is caused by exposure to cold and damp weather, when the neck, shoulders and arms are not properly protected by clothing. Dr. Eberlie says that during a practice of six years in a German settlement he saw but one case, and that occurred in a family where the American style of dress had been adopted. Hot rooms and the confinement of children in-doors are also fruitful causes of this affection. Thin shoes and stockings, especially with those kept in warm rooms, highly seasoned food and all stimulants tend to produce and aggravate it.

Symptoms—Fretfulness, feverishness, cold in the head, slight hoarseness, increasing towards evening and in the early night. Sometimes, however, without a single warning symptom, the child startles us in the night with a hoarse, ringing cough, which cannot be so described as to be recognized, but it is between a hoarse, low whistle and a crow, and which no one who has ever heard can fail to know again immediately. There seems to be a sense of suffocation, evinced by a hurried, hoarse and hissing breathing, as if the air were drawn into the lungs and expelled through too small an opening in some instrument; which is the actual fact, for such an instrument is the accumulated phlegm in the wind-pipe. Great alarm, agitation and distress, with hot skin and frequent pulse, are common though not invariable symptoms. These are all worse at night, and it frequently happens that the patient is quite comfortable during the day. If the disease is neglected or does not yield to treatment, signs of prostration follow; the difficulty of breathing increases, seeming to come on in paroxysms, while the face assumes a livid hue. The patient may die within twenty-four hours, or survive nine or ten days. When there is much fever and inflammation the tendency to the formation of false membrane is very slight; whereas, in cases that seem mild at the beginning, the disease often passes to the membranous stage unsuspected.

Spasmodic Croup is where there is a predominance of spasmodic symptoms. In this form the child may go to bed perfectly well, and in one or two hours be awakened with perfectly formed croup; hoarse voice, ringing cough and threatened suffocation, which, if not relieved, will continue through the night, increasing in severity, but having a remission through the day. If taken early it may be relieved before there has been time for the false membrane to form.

Remedies—1. *The French remedy for croup is onions, which they regard as a positive cure for this disease. There is, perhaps, no remedy in the vegetable kingdom that will cure croup as speedily as onions will.* They are prepared and used as follows: Cut them into thin slices, sprinkling each slice with a layer of sugar. This will soon yield a syrup, of which give a teaspoonful about every fifteen minutes until relief is obtained.

2. KEROSENE OIL IS ONE OF THE MOST POSITIVE REMEDIES KNOWN FOR THE CURE OF CROUP WHEN USED EXACTLY RIGHT. WE HAVE NEVER KNOWN OF A REMEDY THAT HAS BEEN THE MEANS OF CURING SO MANY CASES OF CROUP AS THIS.

A Mr. Wm. Burrows, upon returning home from a trip, found his child dangerously ill with the croup, and soon after the physician in attendance told him that if satisfactory he would call counsel, for he could not see that there was any hope of recovery for the child. Mr. Burrows replied, "I have just been waiting to hear whether you thought you could cure the child or not, for if you cannot, I have a remedy that will." The reply was, "You can use it, but the child can not survive." He did use it and soon had a well child. We have known excessively large doses given to a child at a time. It should be administered both internally and externally. A very small portion internally is all that is necessary. Begin by placing on the

chest and throat cloths wrung out of kerosene, at the same time administer internally four to twenty drops, according to age, and repeat the dose every half hour until relief is obtained.

5. The old remedy of alum and molasses is a good one. Take two parts molasses and one of alum. Mix thoroughly, and give a teaspoonful every fifteen minutes, until vomiting occurs. With some patients honey is preferable to molasses. In ordinary cases of croup this is a sure cure.

A very popular mode of treatment in this disease is to administer an emetic of some kind, which will generally afford relief.

6. Blood-root is a very useful and valuable remedy in croup. It should be prepared for use in the following manner: Take two teaspoonfuls, finely pulverized, and one-half pint of equal parts of vinegar and water; steep for a few minutes, and give the patient from a teaspoonful to a tablespoonful, according to age, every fifteen to twenty minutes, until vomiting is produced. Some physicians recommend a teaspoonful of ipecac to be added, in order to increase its activity.

7. Regarding the use of blood-root for this disease, Dr. R. V. Pierce says: "The agent which I have found to manifest the most specific and remedial effect on this disease is an acetic sirup of blood-root, made by adding one teaspoonful of the crushed or powdered root to one gill of vinegar and four tablespoonfuls of white sugar. Heat this mixture to the boiling-point, strain and administer while warm from one-fourth to one teaspoonful every half-hour or hour, regulating the interval between doses by the urgency of the case. It should be given sufficiently often to keep up a slight nausea, but not so as to produce vomiting. The patient's body should be frequently sponged with hot water, in which a sufficient quantity of saleratus or ordinary baking-soda has been dissolved to render it strongly alkaline. The tincture or fluid extract of veratrum should be administered to control the inflammation. Five drops to twenty teaspoonfuls of water, of which a teaspoonful may be given every hour, will be about the proper dose for a child one year old."

8. Very excellent results have often been secured by causing the child to inhale the vapor of slaking lime, as it softens and loosens the membrane. This may be employed, with care, at any period of the disease. Water should be poured on a piece of quick-lime the size of an orange, and the child held so as to breathe freely the vapor arising from it.

Accessory Treatment—During the treatment everything likely to excite or irritate the patient should be avoided. He may have a partial or complete warm bath; his throat should be fomented by means of sponges or cloths squeezed out of hot water, and a compress of flannel applied to the part when not fomenting; the feet and general surface of the body kept warm; and the air of the apartment raised to about 65° Fahr., this temperature to be uniformly maintained day and night. The air should also be moist as well as warm.

During the attack water is almost the only article admissible and may be given in small, frequent quantities; when recovery sets in, milk and water, arrow-root, gruel, etc. In the case of delicate children, or when great weakness suddenly occurs during the course of the disease, it may be necessary to support the patient by essence of beef, wine and water, etc., which should be administered in small quantities, at regular and frequent intervals. In the case of an infant at the breast, the mother should adopt the dietetic suggestions elsewhere given. See "Diet for Nursing Mothers"

MUMPS (Parotitis).

This is an inflammatory swelling of the salivary glands beneath the lower jaw and in front of the ear, frequently attended with pain, soreness and difficulty in moving the jaws. The glands sometimes attain a very large size; the enlargement generally commences on one side, and as it diminishes shows itself on the other side. Often one side only is involved, leaving a liability to another attack at some subsequent period.

Causes—A specific morbid miasm, generated during peculiar conditions of the atmosphere, which spreads by contagion. It often occurs as an epidemic, particularly in cold, damp weather; is more incident to children after the fifth year than to adults and only occasionally attacks the same person twice, if both sides were affected in the first attack. It is very infectious; children take it from their mates and playfellows.

Symptoms—At first there is a feeling of stiffness and soreness on moving the jaw, and the child complains of discomfort in eating; indeed, the pain caused by eating or even drinking is sometimes agonizing. The glands under the ear soon begin to swell, and they continue to be sore and painful, with more or less fever and headache, for about a week. There is little danger, although there are instances in which, from exposure to cold or from cold applications, the disease has been transmitted to the testicles in boys and to the breasts in girls; hence it is classed as a metastatic infectious disease.

Remedies—If, during the progress of the complaint or after it abates, the testicles, or the breasts of the female, become swollen, painful and inflamed, used a poultice of beans, boiled soft and mashed, or one made of Indian meal or slippery elm. When the pain and fever are severe, use tincture of aconite, five drops in half a tumblerful of water, and, after stirring well, take two teaspoonfuls every three or four hours; or drink freely of warm infusions of catnip or sage. Usually, however, in ordinary cases of this disease, no medical treatment of any kind is required. Good nursing, with attention to diet, is all that will be necessary.

Accessory Treatment—Care is requisite that the patient be not exposed to sudden changes of temperature, or to damp and cold weather during the continuance of the mumps and for several days after the disease has abated. It is also best to avoid active exercise and all stimulating drinks during the same period.

Make no application over the swollen gland with the exception of a dry, warm handkerchief, a piece of flannel or of cotton batting. The diet should be light, and free from stimulating condiments. No animal food should be allowed.

WHOOPING-COUGH (Pertussis).

This is a disease of infancy and childhood, and one attack generally insures immunity for the rest of life.

Symptoms—Whooping-cough is generally preceded by a common cold, cough, feverishness, etc. After from seven to ten days of the catarrhal stage, the cough becomes louder, more prolonged, and assumes the characteristic whoop. Each paroxysm consists of a number of sudden, violent and short expiratory efforts or coughs, which expel so large an amount of air from the lungs that the patient appears on the point of suffocation; these forcible efforts are followed by a deep-drawn inspiration, in which a rush of air through the partially closed glottis gives rise to the distinctive crowing or whooping noise. This whooping is the signal of the patient's safety, for when suffocation does take place, it is before the crowing inspiration has been made. During the paroxysms the face becomes deeply red or black, and swells; the eyes protrude and are suffused with tears, and the expression and appearance of the sufferer are such as apparently indicate imminent suffocation.

The ropy kind of expectoration which follows the cough enables us to distinguish it from common cough, even before the whoop has been heard. Sometimes blood escapes from the nose, mouth and even from the ears, during the fits of coughing.

Remedies—1. Infallible Cure for Whooping Cough.—*The following remedy has never been known to fail in curing Whooping Cough in four or five days if given before or when the child first whoops. Over fifty cases in succession, in one village, were cured without one failure.* Take one lemon and slice thin; add half a pint of flax-seed, two ounces of honey and one quart of water; simmer, but do not boil, four hours; when cool, strain, and if there is less than a pint of the mixture, add sufficient water to make a pint. Dose, one tablespoonful four times a day, and, in addition, a dose after each severe fit of coughing.

2. A tea made of the tops of red clover is very beneficial.

3. A strong tea of chestnut leaves is an admirable remedy for the same purpose; sweeten and give it five or six times a

day during the continuance of the disease. The dry leaves may be found in drug stores, but the green are the best when they can be procured.

4. The following is highly recommended: To three tablespoonfuls of thin sirup or molasses, add as much good whisky and a teaspoonful of the essence of peppermint, and of this give from ten drops to a teaspoonful, according to age, two or three times a day.

5. Some physicians think "there is nothing like asafetida." The tincture may be given in five to ten-drop doses, three times a day. Or, the asafetida may be dissolved in a little whisky and given in like doses.

6. Take a porous plaster, cut in two equal parts; place one-half over the lungs and the other half between the shoulders. It reduces the cough, promotes expectoration and so much relieves patients suffering with whooping-cough that those who have used it recommend it in the highest terms.

7. Three drops of the tincture of Chelidonium; six ounces, or twelve tablespoonfuls, of water. Mix. Dose, one teaspoonful, night and morning, for one week; after which give Corallia Rubra, one grain, morning and evening, for a week, and the patient is cured. If the remedies should at any time seem to irritate, give but once a day.—*Dr. N. G. Pendry.*

8. Slice thin a bowl half full of blood beets. Fill the bowl almost full of molasses. All of the juice will be extracted. Of this give a teaspoonful three, four or five times daily, as required. Another method is to prepare the beets as you would for the table, same thickness, raw, and place in a pudding dish, with alternate layers of sugar. Set the dish in a warm oven to extract juice. Give a teasponful three times a day, or oftener. Mothers who have used this say it is a marvelous remedy for whooping-cough.

Accessory Treatment—It is necessary to treat children with great consideration and to overlook many of their faults, as violent emotions or fits of anger add to the severity and frequency of the paroxysms. Infants must be constantly watched, taken up as soon as a fit comes on, and placed in a favorable position. Friction with olive oil or simple liniment, over the chest and along the spine, for ten or fifteen minutes morning and night, in a comfortably warm room withuot currents of air, is often of great efficacy. During fine, warm weather, the patient should be much in the open air, but damp, cold and exposure to draughts should be strictly avoided. In obstinate cases and in convalescence, change of air, if only for a short distance, proves very beneficial.

The inhalation for a few minutes of the vapor which rises from lime used to purify gas has been found very beneficial in some cases.

Light, digestible food only, in moderate quantities, frequently given; in the convulsive stage, it should be highly nutritious. Toast and water, barley-water, or gum water, are grateful and soothing, but a too exclusive slop-diet often aggravates the vomiting.

MEASLES.

Mode of Propagation—It is propagated or communicated, even after a considerable time has elapsed, by infected clothing, bedding, furniture or wall-paper. Infection only ceases when the peeling-off of the skin is quite complete, and when all the clothing and surroundings the patient have been thoroughly disinfected. It is strongest during the eruptive stage, and especially at the early part of this stage.

Symptoms—After about ten to fourteen days, the period of incubation, the disease is ushered in with the symptoms of a catarrh—sneezing, running from the nose, sore throat, red, swollen and watery eyes, a hoarse, harsh cough, languor and fever, which increase in intensity. About the fourth day of the illness, the eruption begins, and appears in three successive crops—on the face and neck, on the body, and lastly on the legs. It is in the form of small circular spots, resembling flea-bites, which multiply and coalesce into blotches, slightly raised above the surrounding skin, so as to be felt, particularly on the face, which is often considerably swollen. It is like raspberry in color, and turns white for an instant under pressure; a dark purple is a bad sign. It is two or three days in coming out, and remains at least three days. The fever then abates, and a bran-like scurf is gradually thrown off the skin. As the rash declines, diarrhea sometimes occurs; this, unless very troublesome, should not be interfered with, as it is often beneficial.

Remedies—1. Very little medical treatment is required in mild cases of this disease. Cold drink ought to be used, not only during the fever, but while the eruption lasts; being one of nature's best remedies, it should never be denied the patient, under any circumstances, as indeed the craving thirst most plainly indicates, and to withhold it greatly increases the suffering and aggravates the disease. Flax-seed tea is good to allay the cough. The feet and hands may be bathed two or three times a day in warm or tepid water if they burn.

2. When measles occurs before weaning, the infant may refuse to suck in consequence of the closure of the nasal passages; resort must then be had to artificial feeding with the spoon. Cold water, gum-water, barley-water, etc., are the best drinks. No stimulants. As the fever abates milk-diet may be given, gradually returning to more nourishing food. Should the eruption be imperfectly developed or strike in suddenly, the child should be put into a hot bath, or be packed in a blanket wrung out of hot water. The clothing must be frequently changed. A shawl or curtain should be so suspended as to protect the eyes. A little fire, except in the very height of summer, should be kept in the room.

Accessory Treatment—Take three times a day some cracked wheat or boiled rice, with fruits, berries, bread and butter,

sago, tapioca; keep comfortably warm; never by any possibility allow a feeling of chilliness or a draught of air; the room ought to be well ventilated; the most favorable circumstances for measles are a cool, well ventilated room and to keep warm in bed, for a chill or draught will strike the measles in, with liability to all of the bad results named.

Great harm results in numberless cases from impatience to get out of doors; after the rash has disappeared it is better to avoid leaving the house for at least a week.

EARACHE.

Earache, in some instances, is attended by an excessive throbbing pain in the ear. The pain, however, is sometimes very mild, and goes off without the aid of medicine.

But the more violent forms of this disease are attended with excruciating, throbbing pains, delirium and sometimes convulsions.

Causes—An inflammation of the ear is commonly brought on by exposing the ear to a partial current of air. It may arise from cutting the hair of the head very short, particularly in cold weather, or from any exposure.

Remedies—1. The ear should be carefully examined, to determine if there be any foreign bodies in it that may provoke the difficulty, the removal of which will relieve at once. If nothing of this kind is discovered, we may know it to result from a cold, and proceed as follows: Heat a brick or stone, wrap it in a wet towel and place to the ear, heating and sweating it freely, at the same time inserting a few drops of equal parts of warm sweet-oil and glycerine.

2. **The Egg a cure for Earache.**—*The earache can be cured in a few minutes with the oil of an egg.* It is to be used in the following manner: Boil the egg until hard; then take the yolk of the egg and press the oil out through a thin cloth. From a warm teaspoon put two drops of the oil into the ear.

3. *Infants and children need not suffer the great pain and agony of earache, if their parents know the simple home remedy that cures this malady almost instantly.* The remedy is as follows: Take as much black pepper as will lie on a nickel five-cent piece, wrap it tightly in a small roll of cotton batting; moisten the roll with as much sweet oil as the cotton will absorb, then insert it in the ear with a little dry cotton batting over it, and bandage the head. The pain will cease at once. Repeat the dose, if necessary.

5. Another good remedy is to fill a clay-pipe with tobacco, light it and draw a thin cloth over the top of the bowl; place the end of the stem in the ear as far as it will go without pain, and with the mouth on the pipe-bowl, gently but thoroughly force the

warm smoke into the ear, continuing it for several minutes, and repeating as often as it is necessary. This nearly always gives immediate relief.

6. In many cases arnica is a specific for earache. A few drops, five or six, on cotton previously moistened with warm water, and put into the ear, will afford relief. If used in time it will subdue inflammation and prevent gathering in the ear, which is so distressing and so dangerous to the hearing.

7. The dripping of warm water from a sponge into the ear, continuing five to twenty minutes, and often repeating, will also arrest pain and prevent gatherings. Keep that side of the head enveloped in hot moist cloths.

Discharges from the Ear—If the ear gathers and discharges it should be kept clean by syringing with warm water from day to day. After each application of water use the sweet-oil as above directed.

A great deal of injury is done by attentive mothers and nurses, who think the ears of children require to be cleaned out, by inserting into them the "twisted corner" of a towel.

In young children, especially, the use of the syringe requires considerable care, on account of the tenderness of the parts; it is therefore best not to employ it, but make the application by slowly squeezing the water or lotion from a sponge, allowing it to drop or trickle gently into the ear.

The child should lie down on the side opposite the diseased ear, and this should then be filled with the lotion, in the manner just before indicated. After it has remained for two or three minutes, the child may be turned so it will run out. White-oak-bark tea is a good lotion for this purpose; so is alum-water, one teaspoonful powdered, to one pint of warm water. These lotions or washes should be used three or four times a day, in the manner prescribed, and attention given to the general health of the child.

Humming or Buzzing in the Ears—This arises from congestion, or a too great amount of blood about the organs of hearing. When large amounts of quinine are taken, a troublesome ringing in the ears is the result, but it disappears in time. It is a result also of nervous debility, and there is no relief but in the removal of that difficulty.

INCONTINENCE OF URINE—WETTING THE BED (Enuresis).

This is a frequent and troublesome affection of children—not a disease in itself, but a symptom dependent upon causes often difficult to detect; it may consist of partial or complete loss of power to retain the urine. The most common form is wetting the bed,

in rare cases the child may have an almost incessant urging to pass water which, if not responded to, results in a painless, involuntary discharge. If the child be troubled with a cough, the inconvenience is much increased, as during each paroxysm the urine is apt to escape. The affection is most common in children from three or four to fourteen or sixteen years of age, and is most frequent at night.

Causes—Irritation of the bladder from worms; scrofulous or syphilitic constitution; too large a quantity of warm fluids in the evening; food or drink causing an acid state of the urine, which irritates the mucous coats of the bladder; stone in the bladder; tumors, etc.

Remedies—1. Lime-water or bicarbonate of soda (baking-soda), three grains, three times a day, with mild bitter tonics, as a tea made of Peruvian bark, etc., may be employed; and at the same time keep the bowels free and improve the digestion.

2. Bearberry (*Uva Ursi*) is also used with good effect: Take a handful of the leaves, and pour a half a pint of boiling water over them. Give half a teacupful three times a day; and for small children, give half that quantity, or less, according to age.

3. It has recently been discovered that the tincture or decoction of the rush is one of the most important remedies known for incontinence of urine. Prof. Hale, of Chicago, reports various cases, three of which occurred in the same family, all promptly cured with it in the course of a week. Mothers, who are so frequently troubled by their children wetting the bed, will be gratified to learn this fact. The plant is common to all parts of the country. The tincture can be made by adding alcohol to the herb. See "Tinctures." The decoction is made from the tops or stems. Dose of the tincture, ten drops, four times a day. It may be mixed in water.

4. In those cases in which the incontinence is owing to irritation of the bladder, the cause of the irritation will have to be removed before any permanent benefit can be expected. Much relief, however, may be derived from the following pleasant remedy, and it will frequently effect cures: Take of isinglass one roll; boil it in one pint of water until it is dissolved; then strain and add one pint of sweet milk; put it again over the fire and let it just boil; then sweeten with sugar and grate nutmeg upon it. An adult may take of this a tumblerful three or four times a day, mixed with water.

5. The tincture of cantharides, one or two drops three times a day, has been successfully used in the treatment of this difficulty.

6. Parch, grind and boil the common white bean, of which make a drink, to be used freely at meals, as you would drink coffee. W. W. Ashton, of St. Louis, Mo., after suffering for many years and spending hundreds of dollars, was given up as incurable by the physicians; he used this remedy, and in two or three weeks was cured.

Accessory Treatment—As incontinence of urine is gen-

orally the result of disease, medical and general treatment, which must be entirely regulated by the cause, are necessary to correct the annoyance. All salt, sharp and sour articles of food, malt liquors, spirits, tea and coffee should be avoided. Meat may be eaten in moderate quantities, but only a small quantity of fruit, and no flatulent food. Nothing hot should be taken in the after part of the day. Simple water, milk and water, and cocoa are the most suitable beverages. Cold water or mucilaginous drinks in moderation tend to diminish the acrid properties of the urine. The mother or nurse should be quite certain that the child fully empties its bladder before getting into bed, as a child very tired or sleepy is apt to shirk this. Until the cause is removed, the child should be taken up once or twice in the night to urinate. It is preferable to sleep on a hard mattress, with light clothing, and not be permitted to lie on its back; this may be prevented by fixing an empty cotton-spool so that on turning on its back the spool may press into the muscles. At bedtime an occasional warm bath at 90° to 98° Fahr., or a warm sitz-bath, is often of great value in this disease, and greatly contributes to the success of the general treatment. Sponging the lower part of the back with hot water at bedtime is said to cure some cases of incontinence in children. Patients should take much open-air exercise and regular baths; the whole process of the bath, including drying with a large towel or sheet, should not occupy more than a few minutes.

Children troubled with nocturnal incontinence should be prevented from falling into a morbidly profound sleep, as it is then that the discharge of urine occurs. Heavy sleep may be obviated by waking the patient about the second hour of sleep.

Corporal punishment will work no cure. The fear of it increases the tendency to urinate in the case of nervous children. It should only be resorted to when incontinence is the result of an indolent habit of neglecting the natural desire.

CHOLERA-INFANTUM.

This affection is common with children under three years of age. Vomiting and purging, more or less severe, are the prominent symptoms at the commencement of the disease. After a few days the vomiting may cease and the diarrhea continue.

Remedies.—1. Tomatoes Cure Most Hopeless Cases.—Frequently the cure is so rapid that the remedy can be discontinued in 24 hours after commencing its use. *At Louisville, Ky., Mrs. Harper's child, after a long spell, was given up by the doctor to die. The mother then gave it tomatoes against the doctor's advice and it got well. The tomatoes were both food and medicine.* Peel ripe tomatoes, add sugar and give teaspoonful every ½ hour till relieved, then every two or three hours according to urgency

of the symptoms. It is seldom twenty-four hours will elapse before the remedy can be discontinued. It is both food and medicine and some surprising and unexpected cures have been accomplished with it.

2. Add one teaspoonful of unslaked lime to a pint of water and of this give a teaspoonful three times a day. In severe cases it should be given every three or four hours. If this remedy is used in time it will check this disease without the use of any other medicine.

3. Take, of

Rhubarb (pulverized)	2	scruples.
Saleratus do	2	"
Peppermint-plant (pulverized)	2	"

Add a half pint of boiling water and sweeten with loaf-sugar. Dose, one teaspoonful every one, two or three hours, according to the urgency of the symptoms. The action of this remedy seems to be positive and speedy, not only for cholera-infantum but many other bowel difficulties.

4. Three or four injections of Wakefield's Blackberry Balsam have cured this disease when other remedies have failed. Injections of brandy are also excellent for the same purpose.

5. A strong infusion of the knot-grass, or of chamomile, blackberry-root or raspberry-leaves will often relieve this affection.

Accessory Treatment—If the child is sick at the stomach, drinks, especially cold water, should be withheld until the stomach becomes quiet and the child ceases to vomit. A good remedy to settle the stomach is peach-leaves or twigs, well bruised. Cover them with cold water. Of this, give the patient a teaspoonful every twenty minutes. This will often arrest the vomiting, and the patient, in a few hours, will be entirely relieved.

SCALD-HEAD (Tinea Capitis).

This is a chronic inflammation of the skin of the head, productive of a secretion of matter peculiar in its nature and capable of propagating the complaint if applied to the head of a healthy subject. At first the eruption is confined to only a small portion of the head; but by degrees its acrimony is extended to the neighboring parts, and at length the whole of the scalp is beset with a scabby eruption.

Children principally are affected with it. It may arise from uncleanliness, the want of a due proportion of wholesome, nutritive food, and possibly from bad nursing; at any rate these will very much aggravate the disease. In many instances it is propagated by contagion, either by using a comb impregnated with the matter from the head of a person suffering with it, or by putting on his hat or cap.

Remedies—1. The head must be dressed every day in the following manner: After washing clean with mild soapsuds and removing all the scabs, it must be then washed with lime-water, made by slaking a piece of lime, the side of a hen's egg, in a quart of water. In ordinary cases this will cure without additional remedies.

2. In the season of the year when it can be obtained, take green rye, when about eight to twelve inches high, and stew it into a salve with fresh cream. Apply this to the head every morning and evening till cured. Always wash the head with castile-soap-suds, and dry it each time before using the salve.

3. A tea of yellow-dock root, yellow parilla or sassafras, are valuable remedies.

4. In inveterate cases use the following: First, oil the head once daily for two or three days; then, wash the head thoroughly with castile-soap and water, and remove, as far as possible, every crust or scab; when dry, cover every part of the head with common tar. Then wear an ordinary night-cap. The hair should be cut as closely as possible before putting on the oil. In three or four weeks the tar will nearly always peel off, leaving the head (scalp) smooth, clean and entirely free from the disease.

Accessory Measures—Pure soft water is an agent of great value, and in the first stages of this disease, the only remedy required. Hard water is irritating, and when rain-water cannot be obtained, it may be softened by boiling and the addition of bran, flour or other mucilaginous material, which further abstracts the lime-salts.

Great cleanliness is requisite. General baths and friction, to promote the healthy action of the skin, are of great service. The water should be soft. For this purpose also, care should be taken not to spread the disease in washing. The diet should be wholesome and nutritive, avoiding salted meats and fish.

SUMMER-COMPLAINT, OR INFANTILE DIARRHEA.

Causes—The circumstances which may develop an attack of summer-complaint are numerous, and their detection often necessitates much care, but as the cause generally influences the treatment, it should always be investigated. The most fruitful source of this disease is improper food, especially farinaceous or flour and meal-food, which is often most unwisely given almost as soon as the ability to swallow exists. The constant passage of these indigestible, starchy masses along the intestinal canal causes irritation to the sensitive mucous lining, which sooner or later expresses itself in diarrhea. Sour-milk is a frequent cause, especially among the poor.

So is an inferior quality of maternal milk, such as of women to whom the monthly period has returned, or whose milk is otherwise deprived of its nourishment. Sugar is also hurtful, particularly when given too freely in milk when the mother is unable to nurse. When the milk is unsuitable the stools first resemble chopped eggs, and afterwards bad eggs, the child suffering much from wind and colic, emitting flatulence which smells like rotten eggs. Dr. Lade says he finds the milk of the cow, without the addition of sugar, preferable to the two together. One of the earliest causes of this disorder, as the same gentleman points out, is the highly reprehensible practice of some nurses giving castor-oil, or butter and sugar, soon after the baby is born. Foul air and contaminated water, the inevitable results of filth and overcrowding, are causes of an obstinate form of diarrhea. In fact, diarrhea and infantile mortality are largely augmented by neglect of efficient sanitary measures, especially by the effluvia or emanations from drains or decaying vegetables and other refuse, which pollute the air and food and set up irritation. Heat and other atmospheric conditions, especially in summer and autumn, exercise a prejudicial influence, and directly tend to develop or aggravate an attack of diarrhea.

Symptoms—These vary extremely, even in recent and acute attacks, from a slight, painless increase in the quantity, frequency and altered consistence of the normal evacuations, to violent, painful and frequent purging, liquid evacuations, perhaps several times every hour, being ejected with spasmodic force. In the latter case the stools are green or spinach-like, resembling those produced by administration of mercury, but assume a yellow appearance during recovery. Frequently they contain the caseine of undigested milk in the form of numerous white specks. In the more severe stage, they are sometimes streaked with blood and mixed with mucus. There are also generally sickness, thirst and an interruption in the nutritive processes. Acute diarrhea rapidly reduces the firmness of the muscles, and, if the drain be severe, in two or three days there is marked loss of flesh and strength; the eyes are sunken, the features pinched and livid, the pulse rapid, feeble and nearly imperceptible, and the extremities cold and shrunken. On the other hand, after the cessation of an acute attack, the lost flesh and vigor are quickly regained and the child soon recovers its wonted color and spirits.

Slight attacks may be left to themselves; the relaxation may be beneficial, effect its own cure and cease spontaneously in a day or two. As soon, however, as it begins to pass the limits of health and act injuriously, remedial and corrective measures should be instituted.

Remedies—1. A tea made of the common rag-weed is a very effective remedy in this disease, and in many instances the only medicine needed. The tea or decoction should be given freely three times a day.

2. Take equal parts of blackberry and raspberry leaves and make a tea of them; sweeten with white sugar and of this give the patient freely, four or five times a day. It is an old remedy, nevertheless a very good one. In case the leaves of both cannot be obtained, either one alone may be sufficient, or a tea of the root can be employed when the leaves cannot be obtained.

3. Lime-water has proved effective in this disease in cases where all other means had failed. It is prepared by adding one teaspoonful of unslaked lime to one pint of water; give it in doses of one teaspoonful three times a day.

4. Benne-leaves are highly recommended by many physicians for the bowel-complaint of children, as well as for the same complaint in adults. Soak two or three leaves of the fresh plant in a pint of cold water for a few hours; then use it for a drink. Children readily take it without discovering anything unpleasant about it. These leaves can be procured at drug-stores.

5. The tincture of rhubarb, in doses of from ten to thirty drops, according to age of child, will be certain to afford relief in ordinary cases. See "Table of Doses for Children."

6. If there is greenness about the stools, a little lime-water added to the infant's food will correct the acidity of the stomach and give relief.

7. Take, of

Rhubarb, pulverized .....
Saleratus, do. ..... } equal parts.
Peppermint-plant, pulverized .....

To a large teaspoonful of this add half a pint of boiling water; when cool, strain and sweeten with loaf-sugar. Dose, one or two tablespoonfuls every half, one or two hours, according to symptoms and age. This is one of the most valuable preparations known for summer-complaint of children, diarrhea, dysentery, cholera-infantum or cholera morbus. Its operation and action appear to be specific. It is excellent for pregnant women, to allay sickness and regulate the bowels. It is also known as the "Neutralizing Mixture, or Cordial."

8. Another excellent remedy is the following: Take a handful of the leaves (green or dry) of spearmint, pour on them one pint of hot water, let it stand in a warm place for an hour, strain, and add half a teaspoonful of bicarbonate baking-soda. Dose, for an infant, one teaspoonful every three or four hours.

To Prevent Summer-Complaint in Children—Give them only slippery-elm water to drink. A little of the powdered bark, boiled in milk, is an excellent diet.

CHRONIC SUMMER-COMPLAINT.

Causes—Chronic diarrhea is generally traceable to three sets of causes, viz.: disregard of the laws of health and diet, asmospheric

influences, and improperly treated acute disease. The younger the child, the more easily it is influenced by neglect of cleanliness, want of proper food, fresh air and sunlight, and the more essential to recovery is the removal of these causes. The reprehensible practice of giving newly born infants castor-oil and sugar and butter by ignorant and old fashioned nurses, is also a frequent cause of diarrhea, vomiting and indigestion. Chilling of the surface of the body is another frequent cause of chronic diarrhea. As this cause may be obviated by proper precaution, we would impress upon all mothers the necessity of protecting their children, especially if at all delicate, from the inclemencies of the weather.

The acute disorders of which this form of diarrhea is a common result are—measles, small pox, scarlatina, inflammation of the lungs, typhoid fever, croup, bronchitis and pleurisy. Inflammation of the large bowel, when the actions assume a dysenteric form, and ulceration of the mucous membrane of the small intestines, are also causes.

Symptoms—If the disease date from a few days of the child's birth, or if its commencement coincide with weaning or the use of unsuitable food, it is probably a simple catarrh of the bowels. In this species of chronic diarrhea the temperature is lower than in health. When derangement follows an acute disease, there are generally fever, pain in the abdomen, languor and frequently vomiting. These symptoms slowly subside, and leave the case one of chronic diarrhea.

Consumption of the bowels, one of the most formidable causes of chronic diarrhea, may always be suspected when, without the irritation of teething, there is a persistent elevation of temperature in the evening. When the diarrhea shows traces of blood and the abdomen is very tender to pressure, ulceration of the mucous membrane of the intestine is probably present.

The graver forms are those following inflammatory diseases, or when the stools are greenish matter, like chopped spinach, or brown, fetid, dirty fluid and mixed with purulent mucus and blood. Dry and rough tongue, thrush or dropsy are very unfavorable symptoms. Great tenderness of the abdomen on pressure is also of serious import. On the other hand, if the stools become thicker and more uniform (homogeneous), even though they continue very offensive, a favorable result may be anticipated. Among the additional favorable signs may be included: continuance of the natural progress of dentition, or teething, the appearance of tears, and the occurrence of any eruption upon the child's body, even although the diarrhea may not at the time have undergone any visible improvement.

Chronic infantile diarrhea is generally much milder than the acute, but none the less grave on that account. Indeed, the commencement is often so insidious that this serious derangement is overlooked till the loss of flesh and strength is so far advanced

as to force a conviction that some secret disease has been undermining the system. In this insidious form, fever is absent from the first; the evacuations may be three or four daily, about the color and consistence of putty, and accompanied with pain and straining; the discharges consist partly of undigested food, and when there is violent straining, of mucus and even blood from small vessels, ruptured by the severity of the straining; the stools often smell sour and offensive, while the child looks dull and pale, but otherwise well. This form of diarrhea may continue for weeks, or even months, the additional symptoms being loss of flesh, color and activity.

At length more decided symptoms set in, the stools becoming watery, slimy, clay-colored or grass-green, having an increasingly offensive odor. At this stage variations are almost constant, often coincident with atmospheric changes. The emaciation advances; the food, eagerly taken, seems to pass through the child immediately in an undigested state; the child lies listless and helpless, or cries plaintively, and draws up its legs from the accumulation of gas in the abdomen. The skin is now dry and harsh, the features old and pinched, the bones projecting, and the child appears a mere skeleton, loosely covered with flaccid skin. The appetite becomes varied or is altogether absent; the stools become excessively frequent —fifteen or twenty in the twenty-four hours; thrush, soreness of the buttocks and death may shortly supervene. From the poverty and thinness of the blood the feet, fingers and eyelids may swell, or effusions may take place in the lungs; eruptive fevers are very liable to occur, or convulsions or stupor may precede death.

Should the stools, however, become more solid and colored with bile; should the patient also assume a more active, fretful and tearful temperament, hopes of recovery may be entertained. Diminished fetor of the stools, constipation, following the relaxation and increase of flesh and strength, are additional grounds for anticipating a favorable termination of the disease.

Remedies—1. Take one pound of the bark of the root of the blackberry, well cleansed, and a suitable quantity of water; boil two or three hours; strain. Add a pound or more of loaf sugar, or enough to preserve the mixture from becoming sour. Dose, a tablespoonful three times a day, before meals. If it does not arrest the disease after taking it a few days, gradually increase the dose as the stomach can bear it. This is a very valuable sirup in bowel-complaints, particularly the chronic form. It will effect a cure when every other means fail.

2. An excellent remedy may be made of ripe blackberries. Take one quart of the berries; mash; add one ounce of crushed cinnamon-bark; one ounce of cloves, crushed, and one pint of water; simmer slowly for an hour or two, then strain; add one-half pound of loaf-sugar; simmer till there is but about one pint. Dose, for children, one to two teaspoonfuls, repeated after every discharge.

3. In a tumblerful of cold water stir wheat-flour until it be-

comes about the consistency of thick cream, and then drink. An grown person should take this at once, and repeat three times a day, but for a child, a wineglassful, or even less, will be sufficient, to be taken at intervals during the day. It is said to be infallible.

4. "A decoction of sweet-gum bark is an admirable remedy for bowel-complaints. Take a handful of the inner bark (fresh from the tree is as good as the dry); boil in a quart of water down to a pint; it may be sweetened with white sugar, and a little brandy added; take in doses of one or two tablespoonfuls to half a teacupful, according to age of the patient."—*Gunn.*

5. A decoction of geranium or crane's bill may be given in doses of a fourth to a half-teacupful, repeated three or four times during the day. For children, a very good plan is to boil the root in sweet milk, and sweeten with white sugar. This is esteemed a good remedy for the summer-complaint, and may be given freely.

Accessory Treatment—In the first place, an attempt should be made to correct the discharge, even in its mild form, by the removal of its cause. In a majority of cases we believe this will be found in the diet. Farinaceous (flour and meal) food, which should not as a rule be given until after the teeth have appeared, is a common cause of bowel-difficulties.

Should a substitute for the mother's milk be necessary, the best is cow's milk with the addition of sugar-of-milk, as recommended under the article entitled "First Six Months." Page 462.

Lime-water in some cases may be substituted for sugar-of-milk, and added in the proportion of a teaspoonful to a feeding-bottle which holds about one-third of a pint. In addition to its nutritive value, lime-water tends to keep the milk sweet. The temperature of food is also very important; it should be given cold, or even iced in feverish states. Cold milk and lime-water will often suffice to arrest an attack, when warm would be wholly useless. When sickness is superadded to the diarrhea, and is troublesome, all preparations of milk may have to be suspended for a few hours, and whey, veal-broth or barley-water substituted; and this again followed by beef-tea, or other kind of animal broth. The application of a broad flannel bandage to the abdomen, extending from the waist over the hips, particularly during teething, is very serviceable and expedites a cure.

The feet and abdomen should be kept warm. Cleanliness and fresh air aid discovery. Except in severe cases, children should be taken out of doors for short intervals, properly protected from atmospheric changes.

In the case of infants, milk and water, without sugar, is the best of all food; but where it does not agree, Nestle's food may be tried. In some few cases animal broths are efficacious. In older children, old rice, freshly cooked in milk, is excellent. Mutton, chicken, game, pigeon, white fish, etc., are generally advantageous if not overdone. Raw eggs beaten up, or eggs lightly boiled, and other

nutritious kinds of food are advantageous. Friction over the spine and the whole body is necessary. An abdominal belt of flannel is often efficacious. Children should be protected against atmospheric changes by warm clothing. Lastly, change of air is often necessary and promptly curative. If no other end be served, it may remove the little patient out of the range of some undetected and un-thought-of cause of the disease, which exists in the air or water.

SIMPLE VOMITING.

The vomiting of infants may be divided, for convenience of our purpose, into two kinds, simple and chronic, the former being the more common.

When the milk is rejected immediately after nursing or feeding, the milk being curdled, it is of the simple variety, and is caused either by too frequent feeding or over-distention of the stomach. Vomiting of uncurdled milk indicates debility of the stomach, and requires a carefully regulated diet, smaller quantities of food at a time and at shorter intervals.

Causes—Repletion; improper or badly prepared food; premature weaning; the use of starchy food before the child is able to digest it. Wet nurses, unable to fully supply the wants of the suckling, have been known to supplement the breast-milk by arrow-root, corn-flour and other indigestible food, to meet deficiency. In such cases the use of the microscope reveals starch granules, and thus enables us to detect the cause of the derangement. Impure air, too little sunlight, want of cleanliness and other bad hygienic conditions are fertile sources of vomiting. The crowding of a whole family into one room, or the crowding of many children in a small, badly ventilated, ill-lighted and cold room, is not an uncommon cause of the derangement.

Treatment—A change of diet is generally necessary in hand-fed or weaned children, and a change of the mother's diet or of her habits in case of those who are fed by the breast. Suckling infants should be nursed at regular periods and not permitted to nurse too long at one time, the amount permitted to be swallowed being regulated by the previous meal. If that has been rejected, the quantity at the next must be lessened. In some cases the child should have a wet nurse or be fed with sugar-of-milk, as elsewhere directed, or with cow's milk and lime-water, given in such quantities as can be retained. In the case of older children more care is often necessary. When a disposition to sickness has been excited, the stomach will only bear small quantities of food at a time—very much smaller than are commonly given, while warm food is sometimes much better tolerated than cold. Small pieces of ice placed on the tongue tend to allay vomiting, and are usually very grateful to the little patient. After vomiting, it is better to make no

attempt for an hour or two to give any kind of food or drink. After some rest, a teaspoonful of cold water may be given, and followed in ten or fifteen minutes by a very little cold milk and water, or whatever else may be suitable. Another point of considerable importance during sickness, is to avoid moving the child hastily or roughly in giving it food, or raising it more than is absolutely necessary out of the lying posture.

After the child is a week or two old, during favorable weather, abundance of pure, open air and sunlight will improve the tone of the digestive organs. Even as soon as the infant is one or two weeks old, it may be taken out of doors. Strict cleanliness is necessary, and the whole body should be sponged at least once a day in cold or tepid water. The child should be warmly clad, the feet especially being kept warm.

CHRONIC VOMITING.

Causes—Too early weaning, the premature use of starchy kinds of food, and other conditions enumerated under "Chronic Diarrhea."

Symptoms—Chronic vomiting generally comes on slowly and without fever, differing in these respects from common, simple vomiting, which is accompanied by heat of skin, thirst and a coated tongue. At first the child vomits, at irregular intervals, curdled milk of a strong, sour smell, showing by its yellow or green tinge the presence of bile. After a time the matters vomited look like clear water mixed with food. The belly is full, hard and tender; sour or fetid eructations occur, and the bowels are obstinately constipated. The child grows thin, pale and fretful. Occasionally diarrhea intervenes, then leaves the bowels as obstinate as ever, the stools being passed with great difficulty, and consisting of light-colored, hard, round lumps, covered with tough mucus. The tongue is now coated with dirty-yellow fur and dry, the breath smells sour, the lips are red and lack moisture, the mouth is clammy and parched, and the lips appear to project.

This condition may continue for weeks or even months, slowly passing into the next stage, when vomiting occurs much more frequently, and is occasioned by the slightest movement. The milk is rejected uncurdled; emaciation progresses rapidly, the skin becomes harsh, dry and flaccid, the features pointed, and the knees are drawn up on the abdomen. The temperature sinks very low, the child lies with the eyes half-closed in a semi-stupor; thrush appears and the worn-out sufferer sinks to rest.

Treatment—Due care should be at once taken that the child is properly clothed and fed. The clothing should be sufficient to secure comfortable warmth. If it has been prematurely weaned,

and it is impossible to procure a suitable wet nurse, the child should have sugar-of-milk food; parts of fresh cow's milk and lime-water as above directed, with some of the various preparations of Pepsin, obtainable in any good drug store, or fresh whey and cream (one tablespoonful of cream, two of whey and two of hot water). In obstinate vomiting, the food should be given cold or cool. Much injury often results from careless nurses giving food too hot. The body of the child should be sponged twice a day with tepid water, and afterwards rubbed with olive-oil. The greatest cleanliness should be observed, and all vomited matter or soiled clothes removed immediately.

In case of extreme prostration, cold beef-tea may be given in small quantities, frequently repeated. For this purpose the beef-tea may be prepared as follows: To a pint of cold water add a pinch of salt and one drop of muriatic acid; cut up fine eight or ten ounces of lean beef, and stir among the liquid. In an hour strain with gentle pressure through a fine cloth or hair-sieve. For children over twelve months old, the whites of one or two eggs may be thoroughly mixed with the liquor, adding a small quantity of pure port wine.

RED-GUM, TOOTH-RASH (Strophulus).

Strophulus may be red or white. Red-gum begins as red blotches, each slightly elevated in the center; the redness soon fades, and the central elevation enlarges and forms a flattened pimple. They occur on the face, neck, arms and may even extend over the whole body. White-gum consists of pearly, white, opaque pimples, smaller than the preceding, about the size of a pin's head, usually on the face and arms.

Cause—The appearance of this disease, as of nettle-rash, on the body of an infant is certain evidence of unsuitable diet and of derangement of the digestive functions. It is most frequent in children who are kept too much in hot rooms and excluded from the fresh air.

Remedies—1. Little or no medical treatment is required for this disease, which usually occurs a few days after birth. Should any seem necessary, the child may be given a weak infusion or tea of chamomile, a half or a teaspoonful every three or four hours, until the difficulty is removed.

2. Another simple and effective remedy is spearmint tea; a lump of baking-soda of the size of a common bean should be dissolved in a teacupful of it. Give a teaspoonful three or four times a day.

Accessory Treatment—The regulation of the diet; abundance of fresh air; clothing sufficient to protect the body from cold, and at the same time permit of the free access of air to the skin;

and daily use of the bath. Favorable hygienic conditions are necessary in every case, or medicine will prove inefficient. An argument in favor of these measures may be adduced from the fact that, since they have been more generally adopted, and children kept less artificially heated and more freely exposed to fresh air, cases of strophulus and of nettle-rash have largely disappeared.

THRUSH—SORE MOUTH (Aphthæ).

Causes—Unhealthy character of or insufficient breast-milk, unsuitable quality or quantity of food given to infants fed with the bottle or spoon, neglect of general cleanliness, bad drainage, etc. A scrofulous constitution may operate as a predisposing cause. The disease also occurs during the course of measles, typhoid fever and consumption; it is then generally indicative of an early fatal termination.

Symptoms—There is generally some fever; the child is fretful, often refusing the breast on account of pain experienced in sucking; there are usually vomiting and a thin, watery diarrhea, caused by deranged intestinal secretions. The local symptoms consist of innumerable white specks, like little bits of curd, which are sometimes so connected as to form a continuous, dirty, diphtheria-like covering over the tongue, gums, palate and inside of the cheeks and lips. In severe cases "cankers" line the whole interior of the mouth and extend even to the throat and down the gullet.

Remedies—1. Borax has a specific power over this affection, and alone will cure it if the disease is limited to the mouth. The mouth may be washed with a weak solution of borax, one-half a teaspoonful to four tablespoonfuls of water, or borax and glycerine or honey may be used, half a drachm of the former to one ounce of the latter. The infant will swallow sufficient for a dose each time the solution is used. In using the borax alone, dissolve a piece as large as a pea in a teacupful of water; wash the mouth three times a day with this solution, by means of a soft brush. Before using the lotion the mouth should be well cleansed with a piece of linen rag squeezed out of warm water.

2. Powdered lump-sugar and borax, put dry in the mouth, is an excellent remedy; also, a tea of the berries of the sumach is considered good in this disease.

3. Golden seal, used in the form of a decoction or tea, sweetened with honey, often answers a good purpose to wash or gargle the mouth, and frequently effects a cure.

4. A piece of alum the size of a bean, dissolved in a half-teacupful of soft water and applied three or four times a day, is a useful and often effective remedy, especially in the milder forms of the disease.

5. The blue-cohosh root, made into a decoction with golden seal and sweetened with honey, is highly spoken of by eminent physicians as a superior preparation for thrush. It should be applied to the ulcerated parts by means of soft lint moistened with the liquid.

6. Among the vegetable productions of our country perhaps none excels the wild turnip, finely pulverized and rubbed into a paste with a little honey, which should be placed in small quantities on the infant's tongue, and often repeated, to have it spread through the mouth.

The remedies given under "Canker-Sore Mouth" are applicable to this disease.

Accessory Treatment—A point of first consideration is suitable diet. If thrush be distinctly traceable to any disease in the mother which cannot be quickly cured, the infant should be at once provided with a wet nurse, or weaned and fed with sugar-of-milk or cow's milk diluted with lime water.

Prevention—Every variety of starch-food is unsuitable for an infant, and no food but breast-milk, sugar-of-milk or cow's-milk diluted should be used. Cane-sugar, which speedily ferments and is favorable to the development of the disease, is not to be allowed. Strict cleanliness is particularly necessary; after each meal the mouth should be washed, to prevent the accumulation of milk about the gums. This simple measure will often prevent the appearance of thrush. In like manner, the mother's nipple should be cleansed each time after giving it to the infant. Well ventilated rooms and abundance of out-of-door air, every day in suitable weather, will prove of extreme value, rendering the secretions more healthy and raising the tone of the general system.

MILK-CRUST (Eczema).

This is an inflammation of the skin characterized by more or less superficial redness and closely packed vesicles not larger than a pin's head; these run together, burst and exude a starch-like fluid, which dries up and forms thin, yellow crusts. The discharge has the property, when dried, of stiffening linen, which distinguishes it from other skin diseases.

Causes—Hereditary tendency, the sun's rays, heat, cold, stockings dyed with aniline, improper food, friction, irritation of clothes wet with urine, the local application of sugar, lime, coarse soap, soda or Croton-oil, or poor health of the mother during nursing. It is also caused by her irregular and improper diet during the same time. When it occurs in early infancy, the navel is generally its first site.

Symptoms—The little patient is usually pale, thin, pasty-looking, feverish and has an indifferent appetite. This disease

generally appears on the scalp, behind the ears, on the face, the forearms and the legs. Indeed, it affects all parts, but especially the scalp, ears, armpits and flexures of the joints. If the eruption be extensive, the constitutional symptoms, feverishness, wasting, etc., will be more marked. In mild cases, the disease may be recognized by the skin feeling thick when raised between the thumb and finger.

Treatment—Pure, soft water is an agent of great value, and in many cases the only remedy needed. Hard water is irritating, and, when rain-water cannot be obtained, should be softened by boiling and the addition of bran, flour or other mucilaginous matters, which further abstract the lime-salts. The washing should be done so as not to spread the irritating discharge over unaffected surfaces, and afterwards well dried by pressure with a soft cloth, not by rubbing. Petroleum soap or transparent soap is recommended to be used in washing, taking care that in all scalp-diseases the hair should be kept cut very short all the time; remembering, too, that all poultices other than pure water keep the parts more filthy and retard recovery, and that all washes in the nature of astringents, even although as simple as alum-water, oak-bark and common tea, tend directly to cause water on the brain or some other internal ailment quite as fatal.

Great cleanliness is requisite. General baths and friction to promote the healthy action of the skin are of great service. Vegetables, especially such as are eaten uncooked, lettuce, celery, watercress, etc., may be freely taken. Cod liver oil is particularly recommended. Dose, one-fourth to half a teaspoonful according to age, twice daily after food. The diet should be wholesome and nutri tive, avoiding salted meats and fish.

COLD IN THE HEAD—SNUFFLES (Coryza).

Causes—Exposure to draughts and cold, sudden changes of temperature, wet feet, inherited syphilis (in infants).

Symptoms—Cold in the head usually comes on with slight shiverings, pain or a feeling of weight in the head, redness or itching of the eyes, obstruction of one or both nostrils.

Treatment—In the very early stage camphor should be administered. To infants it may be given by inhalation. A drop or two of the tincture should be put in a teaspoon and held near to the nostrils for a minute or longer, and repeated every twenty minutes for three or four times. To older children it may be given on sugar.

Snuffles in children may generally be removed by rubbing the nose and forehead with warm sweet oil, or by placing upon these parts cloths kept wet with warm water.

In severe cases add five drops of spirits of camphor to one teaspoonful of sweet oil, and, after cleansing the nostrils with tepid water, rub the surface of the nose with this camphorated oil. The application of glycerine is also recommended for the same purpose.

Accessory Treatment—The child should remain in a room the atmosphere of which is of a comfortable, uniform temperature. In severe cases a warm bath should be given on going to bed and the child well wrapped in an extra blanket, so as to favor the free action of the skin; this is still further promoted by drinking freely of cold water during and after the bath. In the case of infants their noses should be frequently smeared with simple cerate, cold cream or tallow, to prevent the discharge from forming into hard crusts. In chronic, obstinate cases, the interior of the nostrils may be syringed with a weak solution of carbolic acid. If suckling be difficult or impossible, the milk should be drawn and the infant fed with it by means of a spoon until the complaint is modified.

Prevention—Children should be exposed to the open air daily, which tends to strengthen the body to resist atmospheric changes. They should be properly clothed, especially the lower limbs and abdomen. Lastly, infants should be taught, by laying them on their side, to use the nostrils for breathing in sleep instead of the mouth. This cannot be done too early, for the habit is difficult of acquirement if neglected till adult life.

CRYING.

Significance of Crying—The crying of an infant is expressive and varies much in character. In brain-affections it is sharp, short and sudden. In diseases of the abdomen, exciting pain, it is prolonged. In inherited syphilis it is high-pitched and hoarse. In inflammatory diseases of the larynx, it is hoarse and may be whispering. In inflammatory diseases of the chest and in severe rickets, the child is usually quiet and unwilling to cry, on account of the action interfering with the respiratory functions.

Causes—In many instances infantile crying and fretfulness are due to some mechanical cause, tight or creased clothing, wet napkins, the prick or scratch of a pin, improper or excessive feeding, etc. Crying is also the language by which its wants are expressed; but it is a mistake to suppose that the child should be presented to the breast, or that it is hungry, merely because it cries. The time that has elapsed since the previous nursing will determine the necessity or otherwise for feeding the child. Crying, however, is often due to colic, wind or other symptoms of indigestion in hand-fed children or in infants suckled by unsuitable wet nurses. For the proper investigation of the cause of crying, the infant should be fully undressed in a room of comfortable temperature. By this

method, the form and movements of the chest and abdomen; the the state of the skin, whether hot or cool, moist or dry; the presence or absence of any eruption, and any other peculiarity present, may then be easily detected.

Treatment—Hot flannel applied to the abdomen or rubbing with the warmed hand, placing the child on the knee with the stomach downwards and patting the back gently, will often prove soothing. A warm bath is sometimes found beneficial.

GENERAL DIRECTIONS FOR THE MANAGEMENT OF INFANTS.

Before concluding we deem it desirable to offer some general instructions on the management of early infancy, touching on points which, though they may appear to be of only minor importance, have a most important bearing on the prevention of infantile disease and mortality.

This is a subject that seldom receives the attention which it merits. Through criminal ignorance or neglect of the laws of health pointed out in these volumes, three-fourths of the children in nearly every family are either more or less diseased, in some way, or are in their graves before they arrive at years of maturity.

The Newly Born Infant—In all those cases where an infant is born before the doctor's arrival, it should receive the attentions pointed out in the article entitled "How to Act in the Absence of a Physician." If the child is healthy and strong, it will cry vigorously; for the transition from a condition of unconscious repose in a bland fluid at a temperature of 98° Fahr., to the contact of rough clothes and a comparatively cold temperature cannot be agreeable. The act of crying helps to fill the lungs with air, and thus the functions of breathing and pulmonary circulation become established.

The First Washing—As soon as breathing has fairly commenced and the umbilical cord been tied, everything being ready beforehand, the infant should be enveloped in soft, warmed flannel, and oiled or washed, as preferred. Do this at once, for the skin requires cleansing from the tenacious fluid which adheres to it at birth, in order that healthy transpiration may be established. A new-born child is often allowed to remain a long time before it is washed, and even then it is not always washed quickly and skillfully, so that it shivers and its skin becomes blue before it is placed by its mother's side.

Before commencing the process of washing, the eyes should be carefully wiped with a piece of moist, soft linen; then the rest of the body should be cleansed, by means of a fine sponge, with warm water and a little soap and carefully dried with a soft, warmed

towel. If the coating-matter be considerable or very adhesive, a little fresh lard rubbed upon the skin previous to the application of the soap and water will render its entire removal an easy operation. As soon as the cleansing is completed, a little violet powder, finely powdered or scented starch, may be dusted lightly on the surface, especially in the creases of the joints.

Covering the Face—The practice of covering the face and particularly the mouth of the infant, immediately after birth or at any other time, is very injurious, and no mother or nurse should be guilty of it. The child requires fresh air to breathe, as well as a grown person

Presenting the Infant to the Breast—As soon as the mother has somewhat recovered from the exhaustion of labor, the infant should be put to the breast. The application of the child to the maternal font at once, often prevents or much diminishes the disturbances incident to the coming of the milk; it also tends to appease the wants of the infant, and enables it better to grasp the nipple than when the breast is over-distended or hard with the milk; further, by its promoting contraction of the womb of the mother the probability of secondary uterine hemorrhage, and also the chance of what is called "Milk-Fever," will be much lessened.

Immediately after being dressed, the infant should be laid on its mother's bosom and not, as is too often the case, placed by itself in a cradle where it is in danger of being too cold. As a general rule, for the first few days it should sleep in the same bed with its mother, especially during cold weather; afterwards it should sleep in a cradle or cot.

Milk in the Breast the First Day—It is affirmed by some nurses that until the third day after labor the breasts contain no milk, and that a substitute, gruel or some other farinaceous preparation, is necessary. In the great majority of cases, however, milk sufficient for all the requirements of the infant is present on the first day, and the only thing necessary to be done is to apply the child's mouth to the nipple. Should there be no milk at the moment, the suction of the infant, which is the natural mammary stimulant, will hasten the secretion; while, as we have elsewhere stated, the suction promotes the necessary uterine contractions which are favorable to the mother. If, after repeated attempts, in eight or nine hours there be no breast-milk drawn, the child may have, until the secretion be fairly established, cow's milk diluted with warm water (two-thirds milk to one-third water), with the addition of sugar. The milk should not be boiled, nor should the water added to it be too hot, for in either case the albumen is liable to be coagulated and the milk rendered less digestible. The administration of any kind of farinaceous food, sugar, butter or gin to the new-born infant is not only unnecessary, but is likely to prove of incalculable mischief.

 Longings of the Baby—The following directions on this

subject, from Mrs. Duffey, are exceedingly judicious, and the case she gives in illustration is well in point:

"Let no young mother be persuaded to try her babe with one article of food after another in the belief that, because it happens to put out its tongue occasionally, it wants something which it must certainly have, if the right thing can be found.

"'Why,' said one excellent woman, 'I gave my babe a pickled bean to suck when he was only six weeks old, because he put out his tongue for it and wanted it.'

"'Well,' I replied, 'I should judge from his present state of health that he had been fed upon pickled beans and things of a like appropriate character when he was a baby.'

"There might have been a slight touch of cruelty in the answer, but my excuse must be that I was exasperated beyond my powers of patience. There was, besides, such an opportunity for a retort, as the man who, as a babe, had sucked pickled beans was a confirmed dyspeptic, dating back his sufferings as far at least as memory would carry him, and had probably never known a day of perfect health in his life."

Attention to the Bowels—A mother should carefully attend to the condition of her babe's bowels. The discharges should be of a bright yellow color, inclining to orange, and of the consistence of thick gruel. If they are slimy, curdled, green or too thin, it is an indication that the mother must make some change in her own diet.

As soon as the babe is old enough to sit up with support, it should, the first thing after leaving the bed in the morning, be placed in an infant's chair. This should be repeated several times during the day. The child will finally understand the purpose for which it is placed in the chair, and diapers can generally thenceforth be laid aside.

Open-Air Exercise—Children require fresh air and sunlight as much as plants and flowers do; and as the latter are colorless and imperfect if excluded from direct sunshine, so children who live in places where light does not abundantly enter are pale and feeble. In fine weather, an infant over a month old should be taken out at least twice a day, the only precaution necessary being that it should be sufficiently clothed. In warm, sunny weather, the more it is in the open air the better, if care be observed to protect the head from the hot sun. In short, a child should almost live out of doors during suitable weather. Plenty of exercise in the open air is necessary for the healthy development of the limbs and body generally. Suitable athletic games and exercises should form a part of the early education of all children, and these games and exercises should take place in the open air, except during inclement weather, when they may be carried out in spacious, well ventilated rooms.

Food—No point is of higher importance in the rearing of

children than the proper arrangement of their meal-hours and observance of hygienic laws in the management of their meals. Errors in feeding probably rank first among causes of infantile disease and death.

The mother's milk is the sustenance provided by nature for the infant, and as yielded by healthy mothers is superior to all artificial substitutes; and suckling is the best method of feeding.

When the mother enjoys good health and has a sufficient quantity of milk, an infant requires and should have no other food but breast-milk until from the sixth to the ninth month. Even during the first day or two, the breast usually furnishes sufficient nourishment. The too common practice of giving butter and sugar, gruel and various other articles to a new-born babe should be strictly interdicted as an uncalled-for act of cruelty. Should the formation of milk be unusually long delayed, a little new cow's milk (unboiled), diluted with an equal quantity of warm water, with the addition of a little white sugar, may be given until the function of the breast becomes established. For the first five or six weeks the infant should be applied to the breast at regular intervals of two hours and a half during the day, and at longer intervals, if possible, during the night; but after the first two or three weeks it should be accustomed to remain without food from about 11 P. M. to 2 or three A. M. It is important, too, that the infant should nurse from each breast alternately. Regular habits of feeding may be soon acquired, and it is a great mistake, and often the cause of wind, colic and other disorders, to give the infant the breast whenever it cries or to let it be always nursing.

Diet for Nursing Mothers—A nursing mother or wet nurse does not require an extra or a rich diet, but should exercise discrimination in the selection of her food. To overload the stomach or to eat indigestible articles, would occasion digestive derangement, to the injury of the infant as well as herself. The meal-hours should be regular, and late meals avoided. The thirst to which nursing mothers are liable is best appeased by milk-and-water, barley-water, toast and water and similar beverages.

A person of full, robust habit will require less nutriment, while a delicate person, of languid circulation, will need more animal food, milk, etc.

"It is necessary for a nurse who has a tendency to flatulency or wind to avoid food apt to induce that ailment, not only on her own account, but that of her charge; for this and other disordered functions tell upon an infant immediately through the medium of the milk. Where a nurse is actually affected by flatulency, her taking a little powdered ginger or soda makes her milk agree better with the digestive powers of the child.

"A mother who is also a nurse has a double claim upon her, and a double motive to stimulate her in the observance of the laws which govern health. The immediate welfare of herself is indis-

solubly united with that of her child; every transgression on her part inflicts suffering on her infant, who is the helpless victim of her errors. And not only so; unhealthy, ailing children, bring great afflictions upon a family. In the case of affluent persons, they bring disappointed hopes, wounded pride and sorrowing affections. A father is naturally disposed to regard his offspring with pride, exultation and hope; but can he do this when he sees ailing, fretful beings, incapable of enjoying or benefiting by the advantages which his abundance and affection procure? In the case of poor people, the sorrowing affections are aggravated by the expense, the household discomfort entailed by illness and the prospect of the sickly creatures around them being hereafter incapable of earning their maintenance at all, or of doing so under the pressure of bodily and mental suffering. The faults of the mother may inflict these disappointments and difficulties upon the father. Her responsibilities are therefore great and numerous."— *Scudder.*

Regimen of Wet Nurse—The regimen and diet of a wet nurse should as nearly as possible resemble those she has been previously accustomed to. A woman of active duties and frugal diet is certain to suffer in her health if she suddenly relapse into a life of in-door idleness, and take a too abundant supply of food and such beverages as ale or stout. A wet nurse taken from industrial pursuits should continue to perform at least light duties, or take a large amount of regular, open-air exercise. The use of stimulants is injurious, and if taken to cause a good supply of milk may result in disappointment or debility and bring on a host of evils from which the infant cannot escape.

Should a nursing mother or wet nurse begin to suffer from headache, dim sight, dizziness, shortness of breath, palpitation or night-sweats, it is evident that nursing exhausts her and should be discontinued.

The diet of infants being of great moment to their well-being, we devote the following additional remarks to the further consideration of the subject.

Food for the First Six Months—1. We commence by stating emphatically that children who enjoy their inalienable right to maternal breast-milk, assuming this to be suitable in quality and sufficient in quantity, require no other food. The infant should be applied to the breast every two hours and a half during the day for about the first six weeks; afterwards only once every three hours. But it should not be awakened from sleep to be fed. After about the first month it will not be necessary to give the breast at all between the hours of 11 P. M. and 2 or 3 A. M. The early commencement of this arrangement is very important, as it affords the opportunity for that regular, undisturbed repose which contributes much to the well-being of both mother and child.

2. For children brought up by hand, cow's milk diluted with water, with the addition of sugar-of-milk, is the best substitute for

breast-milk. One ounce of sugar-of-milk dissolved in three-quarters of a pint of boiling water, and mixed, as wanted, with an equal quantity of good, new cow's milk, should be given from the feeding-bottle at the same intervals as recommended for maternal nursing. As soon as the meal is over, the tube should be removed from the child's mouth. It should not be allowed to fall asleep with it in its mouth. The bottle and teat should be thoroughly washed after each meal and the former always kept in a basin of cold water when not in use. A sweet feeding-bottle is of great importance. It is well to have two bottles, so that one can be cleansed while the other is in use. Neglect of scrupulous attention to the feeding-bottle is a frequent cause of indigestion and other disease.

3. If, from poverty or scantiness of the breast-milk, a combination of nursing and feeding become necessary, the breast should be given twice a day. For the other meals the child should be fed on the diluted sugar-of-milk and unskimmed cow's milk, as prescribed in the previous paragraph; or the artificial diet may consist of new cow's milk diluted with about one-third of warm water, so as to bring the temperature to that of breast-milk. This diet is infinitely preferable to any variety of starch-food and to the ill-selected additions to maternal milk often supplied at the fifth or sixth month.

If the child do not thrive on this diet, he may, after three or four months, have milk in which a small quantity of gelatine and arrow-root have been boiled.

Starch-food Unsuitable—Starch is not necessary to the infant, for breast-milk contains none. Starch requires, before it can be digested and absorbed, to be converted into a soluble substance called dextrine, which can only be effected by the starch being ground up and mixed with saliva. But as the child has now no teeth, and much of the saliva dribbles away, starch-food passes into the stomach unmixed with its natural solvent, and therefore is insoluble and indigestible. It is easy then to understand how an insoluble mass of boiled bread, gruel, arrow-root, baked flour, rice, biscuits, rusks or any other starch-food, passing through the stomach and scraping and scratching along the delicate, sensitive bowels, might readily produce all the ills to which infantile flesh is heir.

Dr. Ellis says: "Among the most pernicious kinds of nourishment for a young infant, may be named those miserable compounds of flour and milk, cracker or bread and water, or oatmeal and water, which are fed to children under the names of pap, panada and water-gruel. The powers of the infant's stomach are inadequate to digest properly these substances. Let the infant's stomach be once or twice filled during the twenty-four hours with gruel, or any of the ordinary preparations resorted to by nurses for this

purpose, and the chances will probably be as ten to one that acidity, vomiting, colic, griping and jaundice will supervene."

There are now several kinds of food especially prepared for infants—as Nestle's food and others, that can be recommended as digestible and satisfactory food for infants.

STILL-BORN INFANTS.

Children are sometimes born apparently dead, and if means are not quickly adopted this condition may pass into one of real and permanent death. But so long as the heart continues to beat, even but feebly, there is a probability that well-directed efforts will be successful in exciting breathing.

Causes—Constitutional feebleness, so that the effort necessary to commence breathing cannot be made; obstructed circulation during labor by pressure or twisting of the navel-string; too long-continued compression of the head; tenacious mucus in the mouth and throat, preventing the entrance of air, etc.

Rules for Treatment—1. The first object is to clear the throat and nostrils of mucus. This is best done by the prone position, pressure along the back, etc., or by seizing it, as it appears, by a piece of soft linen.

2. The second object is to imitate Nature, and excite respiration, for which the alternate hot and cold douche or bath, or excitants applied to the skin, are the most effectual measures.

3. The third and all-important measure is, to imitate respiration, which may be accomplished by alternate rotation, and pronation with pressure.

4. Next follows friction along the limbs upwards with flannel.

5. The continuous warm bath, as distinguished from the sudden alternate hot and cold baths, is to be carefully avoided, as causing loss of time and the neglect of all-important remedies.

Accessory Treatment—The first efforts to promote breathing are to be made before the navel-string is divided, if pulsation is felt in it. Obstructive mucus should be carefully wiped away from the mouth and throat, and the general surface exposed to cold air; an attempt should then be made to excite the function of breathing by blowing in the infant's face, sprinkling cold water with some little force on the face or chest, or alternately cold and hot, and by giving several smart blows with the hand, or with the corner of a towel wetted with cold water, on the hips, back and chest. The back and limbs should be well rubbed, while the face is freely exposed to the air.

The following is another good method of exciting breathing: Close the infant's nostrils with the finger and thumb, press the wind-pipe gently backwards, and then blow into the mouth, so as to

drive the air into the lungs; afterwards press the ribs together, so that the lungs may expel the air. This process should take place about fifteen times in one minute, and if persevered in is the most likely to be successful in a short time. Meanwhile the body should lie on a flat surface, and be well rubbed with warm flannels, and the head not suffered during these efforts to fall upon the chest.

If these means are not successful, and the pulsation has ceased in the navel-string, it should be divided as before directed, and the infant plunged into a warm bath, 98° Fahr., or what is agreeable to the back of the hand. If the sudden plunge does not excite breathing, it will be no use to keep the infant in the bath beyond a minute or two, and Dr. Marshall Hall's ready method may then be tried as follows:

"Place the infant on its face; turn the body gently, but completely on the side and a little beyond, and then on the face, alternately; repeating these measures deliberately, efficiently and perseveringly, fifteen times in the minute only."

WEANING.

The proper period for weaning the child is generally at the age of from nine to twelve months; but a time when the child is in good health and free from the irritation of teething should be chosen as the most appropriate, even if it is beyond twelve months. Too hot weather or the prevalence of any intestinal epidemic may necessitate the deferment of weaning for a short time. If the mother is feeble and sickly, it is generally desirable to wean the infant when it is six months old, or even at the end of the first or second month, if the mother presents evidence of great suffering from lactation.

The child should never be fed, except from the mother's or nurse's breast, until it is at least six or eight months old, unless this natural fountain becomes dry; and even then nothing but the milk of one cow should be given, unless a physician for some special purpose or occasion desires a substitute. As children get older, solid food may be substituted for milk; though, as a rule, young children should not be nourished too largely on animal diet. The first teething should at least be passed before this kind of food is allowed, as it produces irritability of the stomach, which is already much excited by the process of teething.

"Until after the first dentition or teething is completed," remarks Dr. Condie, "solid animal food, in our opinion, should form no portion of an infant's diet; it is apt to increase the fever to which the system is already predisposed, and to augment that irritability of the digestive organs which is an almost invariable attendant, to a greater or less extent, upon the process of teething."

250,000 BABIES DIE EACH YEAR IN U. S. BECAUSE OF THEIR PARENTS' IGNORANCE

Intelligent Feeding and Proper Care of the Mother Before and After Childbirth Would Reduce Infant Mortality

Do you know that it is five times as dangerous to be born a baby in the United States as it was to be a soldier in the A. E. F. in the World War (and we thought that was a dangerous job)? Approximately 80,000 American soldiers gave their lives during the World War and nearly 250,000 babies under one year old gave their lives during the Battle of Life in the United States in 1922. The tragic feature of these figures is that the large majority of infant death could be avoided.

READ THIS VERY CAREFULLY

"The child is the adult of tomorrow. The kind of food a child has today determines to a considerable extent the fitness of the future citizen. Those who direct the feeding of the child have a responsibility which cannot be overlooked. Good food habits should start today. Tomorrow may be too late." U. S. Government Bulletin "Diet for the School Child." See page 473.

Feed children in a matter of fact way. Avoid coaxing—it usually does not help, in fact it usually aggravates the condition. Be sure that your child is well, insist on plenty of rest, have the surroundings calm, be firm and consistent. You will then succeed. Remember that no habits can be formed in a day. It takes time and patience to succeed in anything.

The Baby—Breast feeding is Nature's method and its importance cannot be overestimated.

Breast milk is Nature's food for the baby, and no other kind of food, no matter how prepared or how much advertised, in any way compares or approaches breast milk for the baby. The expert can tell, at almost a glance, the breast fed baby from the artificially fed baby. No other type of feeding approaches the fine development and well being in the baby as breast milk. Breast feeding not only properly nourishes the baby, but the breast milk in itself protects the baby against many of the dangers of disease. Eighty-five out of every 100 babies who die during the first year of life are babies who have been deprived of mother's milk. If you do not nurse your baby, there are ten times as many chances that he will not live through the first year as there are if you do nurse him. Not only this, but the baby who is breast fed through his first year has an insurance of future health which is denied to the artificially fed child.

In most instances the "breast milk not agreeing with the baby" is the result of overfeeding, underfeeding, or feeding at irregular or too frequent intervals. If the baby is not gaining properly in weight, the breast milk is probably not sufficient in quantity, *not quality*. It may then be necessary to give a cow's mixture *after* nursing (do not omit the nursing, to do so may help in drying

up the breast). Babies should not be nursed oftener than every three hours, the four hour interval probably being the best. The baby should be trained to go without nursing from 10:00 P. M. to 6:00 A. M. as soon as possible. This insures a good night's rest for both mother and child. Regularity pays and the habit can easily be formed. It adds to the comfort of both the baby and the mother. Nursing at both breasts at each feeding may be advisable if the supply of breast milk is low. In no case, however, should the *total* nursing period exceed 30 minutes (20 minutes being the average), as the baby receives practically nothing after that time.

The average normal baby gains from 4 to 8 ounces per week during the first 6 months of life and 4 to 6 ounces during the second 6 months, doubling its birth weight by the end of the fifth month and trebling it by the end of the first year.

If additional nourishment is required it can usually be supplied by giving a modification of cow's milk. Simple cow's milk mixtures are on the whole superior to the widely advertised baby foods. The latter are often poor balanced, being too rich in sugars and starches, and if given over a long period of time usually result in nutritional disturbances. Their use furthermore involves a needless expense with no added advantages. All the milk formulas should be boiled for 2 or 3 minutes. Contrary to a rather popular conception, it has been proved that *boiled milk* is more easily digested than raw milk, and it is much safer. Milk should be obtained from tuberculin tested cows, if possible.

Constipation during the early months of life is very common, and unless extreme is not abnormal and does not affect the health of the child in the least. Unless the baby is very much distressed, there should be no interference on the part of the mother until 48 hours have elapsed. A small suppository or enema will then be all that is necessary. The common practice of "doing something" every day for the baby's bowels should be avoided; remember that *a baby does not necessarily have to have a bowel movement every day,* and if let alone the bowels will probably regulate themselves in time. To use suppositories, enemas or laxatives daily will only aggravate the constipation. A little prune juice may be given after the third month if necessary.

Vitamin—Orange juice, because of its vitamin content, should be given after the third month, beginning with one teaspoonful of the strained juice morning and evening, and increasing gradually to one tablespoonful twice daily. It usually has no influence on the bowels. Either fresh tomato juice or the juice of canned tomato (factory canned, vacuum process, not home canned) is quite as satisfactory as orange juice for this purpose. Peach juice, cherry juice, grape juice, currant jelly, berry juice, or pineapple juice, may be substituted for part or all of the time, the juice of fresh fruit only. A teaspoonful or two of any such fruit juice or of fresh apple juice, apricot juice or pear juice should be given bottle babies every day at the age of

3 months. The use of small quantities of fruit juice is sometimes beneficial even for breast fed infants.

Beginning at 6 months solid food is given in addition to breast milk. Babies usually have to be *taught* to eat solid food. This requires a little patience and perseverance on the part of the mother, but the baby will soon learn not only to eat, but to like its new diet. Add one new food at a time, beginning with small amounts, and increase.

Before outlining a diet mention should be made of a number of other subjects, relative to the needs of the baby.

Care should be exercised that the baby is not over clothed. Much needless suffering is incurred through the misguided efforts on the part of the mother "to keep it from catching cold." To overheat the baby not only causes general discomfort and a tendency to irritation of the skin, but in fact makes the baby "tender" and more subject to exposure. In the winter months the undergarments should be made of a mixture of wool and cotton or wool and silk (pure wool being irritating to the skin). A shirt and a vest, a diaper, a flannel petticoat, a light overdress and stockings (of a wool mixture as above) is all the regular clothing required for an infant. When out of doors appropriate outer garments must be added. In midsummer, cotton or cotton and silk may be substituted for the woolen garments, the amount of clothing varying with the climatic conditions.

Colds—It must not be forgotten that babies usually acquire their "colds" from contact with individuals suffering from such an infection, therefore *do not permit anyone suffering from a "cold" to come near the baby,* for such infections are responsible for many of the ills including digestive disturbances of infancy. Mothers having a "cold" should always wear a mask consisting of several layers of thin cloth and covering the mouth and nose while nursing or caring for the baby. Even then she should be in contact with it as little as possible.

Fresh Air—Be sure that there is a plentiful supply of fresh air in the room. This does not necessarily mean cold air. We are not in sympathy with the plan of placing small babies outdoors and on sleeping porches all night. During the first three months of life the temperature of the sleeping quarters should not be below 60 degrees. A baby under three months of age should not be taken out in severe weather. After three months (earlier in midsummer) the baby may be placed outdoors for its nap if the weather is not severe, and the baby is properly clothed, beginning with a short period, 15 to 20 minutes and increasing. Care should be taken to protect from high winds and dust storms. Fresh air and sunshine, when used with ordinary discretion, are wonderful tonics and contribute materially to the welfare of the baby.

Handling—Do not handle the baby too much or permit this on the part of others. A baby has a very delicate nervous system which can easily be overtaxed resulting in restlessness, sleeplessness

and in some cases to more serious disorders. The surroundings should be calm (including the mother). Do not pick up the baby every time it cries, there is no surer way of spoiling it. A certain amount of crying is normal. If it habitually stops crying when picked up you may be sure that it is being spoiled. In that case allow it to cry and it will soon get over the habit. Do not be afraid of the baby rupturing itself. A little firmness and training during the first few weeks of life will go a long way in making it a happy and contented baby.

Habits—Do not allow the baby to develop the thumb sucking habit. It tends to deform the jaw and the roof of the mouth aside from being an unclean habit. A stiff cuff made of cardboard and extending the entire length of the arm to the wrist can be used if necessary and permits the free use of the arm.

Daily Rub with Olive Oil—Give a fifteen months old baby an olive oil rub after its daily bath. This will keep the baby healthy and the skin soft. It is a good flesh builder and hair grower, a condition which is almost impossible to obtain when hard water is constantly used. As the hair becomes thicker, use but once a week.

DIETS

At Six Months

6:00 A. M.—Breastfeeding.
10:00 A. M.—Cooked Cereal, Breastfeeding.
2:00 P. M.—Breastfeeding.
6:00 P. M.—Cooked Cereal, Breastfeeding.
10:00 P. M.—Breastfeeding.

Use Pillsbury's wheat cereal, cream of wheat or farina. Cook thoroughly two hours in a double boiler. Serve thick, no cream or sugar being required. Beginning with one teaspoonful, increase so that the baby is receiving two tablespoonfuls at the end of two weeks and four or five tablespoonfuls at the end of the seventh month.

At Seven Months

6:00 A. M.—Breastfeeding.
10:00 A. M.—Cooked Cereal, Breastfeeding.
2:00 P. M.—Vegetable, Breastfeeding.
6:00 P. M.—Cooked Cereal, Breastfeeding.
10:00 P. M.—Breastfeeding.

The best vegetables are spinach and carrots. In beginning use only one vegetable. Later, the diet may be enlarged to include in addition asparagus tips, cauliflower, string beans and peas. Cook vegetables very tender in a small amount of slightly salted water, drain and press through a ricer or sieve. Begin with one teaspoonful and increase so that the baby is receiving from one to two tablespoonfuls by the end of the seventh month. The presence of vegetable fibers unless accompanied by loose stools should cause no variation in the feeding. If loose stools occur it may be advisable to decrease the quantity or to withdraw the vegetables entirely for a few days.

At Eight and Nine Months

6:00 A. M.—Breastfeeding.
10:00 A. M.—Cooked Cereal, Breastfeeding.
2:00 P. M.—Vegetable, Toast, Broth, Breastfeeding.
6:00 P. M.—Cooked Cereal, Breastfeeding.

A little boiled milk may be poured over cereal at this time in preparation for weaning.

Broth should be skimmed and made from beef, mutton or chicken.

Vegetables, toast and broth may be given together, or the toast in the form of zweibach or well toasted bread may be soaked in a little boiled milk. Later it may be given dry if desired.

At Ten Months—Babies are usually weaned when between nine and ten months of age, depending somewhat on the time of the year and upon whether they are taking their solid food well. In no event should the nursing be continued beyond the end of the first year. The 10:00 P. M. breastfeeding may be discontinued after seven months, a convenient schedule thereafter being 7:00 A. M., 11:00 A. M., 3:00 P. M., and 7:00 P. M. Weaning is best accomplished by substituting a bottle of boiled milk (diluted at first) for a breast feeding and thus replace a nursing about every two days until weaning is accomplished. No more than 24 ounces of whole milk should be given in 24 hours. The remainder of the feeding should remain the same, though baked apple may now be added if desired.

One to Two Years

7:30 A. M.—Cooked Cereal, Toast, Fruit Sauce or Orange Juice, Boiled Milk.
12:30 P. M.—Potato (baked or mashed), Vegetable Pulp, Meat, Toast, Broth, Boiled Milk.
5:30 P. M.—Cooked Cereal, Toast, Fruit Sauce, Milk, Simple Dessert.

The milk requirement for the average child for 24 hours is about 24 ounces. This is the total quantity and includes that used in cooking. A number of variations may be made in the diet, selection being made from the list given below.

Cereals—Pillsbury's wheat cereal, Cream of Wheat, farina, oatmeal, rice, cream of barley, Pettijohns. Cook 2 hours in a double boiler and serve with a little boiled milk and a sprinkle of sugar, if desired.

Vegtables—Spinach, carrots, asparagus tips, string beans cauliflower, peas, Swiss chard, squash, onions, Brussel sprouts. Cook tender in a small amount of slightly salted water in soup stock. Put through sieve and again add to the stock. Serve plain or with a little butter or white sauce.

Fruits—Orange juice, baked apple or stewed apples, prunes apricots, pears, peaches, thoroughly cooked and put through a sieve. After 15 months a little mellow scraped apple may be given if desired.

Meat—A little finely divided or scraped meat should be given once daily. Only lean beef, mutton or chicken may safely be given at this age. Take a thick piece of lean meat and with a large spoon or knife scrape off the soft meat, leaving the tough fibers behind. Add a little salt and form into a small pat and broil in a hot dry skillet. Begin with a small amount and increase up to two tablespoonfuls.

Thin crisp bacon may be given but no other form of pork. Because of the danger of eczema and other skin diseases, eggs should not be given until after the 18th month.

Simple puddings such as rice pudding, bread pudding and fruit sauces should serve as *dessert* at this age. Avoid sweet foods as much as possible. They only serve to develop a "sweet tooth" and are not essential. Tea and coffee should, of course, be avoided.

Two to Six Years

Breakfast—Cereal, bread and butter or toast, milk, fruit, bacon or egg.

Dinner—Green vegetables, potato, meat or soup or broth, bread and butter, milk, dessert.

Supper—Bread and butter or toast, milk, cereals in various forms, creamed vegetables, egg, milk soup, fruit sauce or pudding.

Bread—A very important part of the diet. Should be at least 24 hours old. Graham or whole wheat bread may be given after the third year if no irritation of the bowels ensues and is even more wholesome than white bread.

Cereals—Cooked cereals are to be preferred to the prepared foods. They are both more nourishing and economical. Do not cook the same cereal every day—have a variety, the child will not tire of them so readily. There are many good cereals for cooking among which the following are especially recommended.

Farina, Cream of Wheat, Pillsburys Wheat Cereal, Oatmeal or Rolled Oats, Cream of Barley, Cream of Rye, Pettijohns, Rice, Sago or Tapioca, Cornmeal.

All should be cooked two hours in a double boiler.

Vegetables—All vegetables with the exception of cabbage, corn and cucumbers (and turnips and beets for smaller children). Cook thoroughly and mash, add a little butter or white sauce, if desired.

Meats—Fresh lean beef, mutton or poultry. Fresh baked fish, bacon. Do not give other forms of pork, as it is difficult to digest.

Eggs—Boiled, poached or scrambled.

Fruits—Up to 4 years, oranges, grapefruit, scraped mellow apple and all stewed and canned fruits with exception of berries. After that time other fresh fruit may be given in *small amounts* if well tolerated. Be sure that the fruit is ripe, but not decomposed. Bananas are *not* ripe until the skins have brown spots.

Beverages—Milk 1½ pints in 24 hours. Cocoa may be given for older children. Avoid pastries.

CHILDREN'S CORRECT HEIGHT AND WEIGHT TABLE
AVERAGE WEIGHT FOR HEIGHT FOR BOYS

Height Inches	5 Yrs.	6 Yrs.	7 Yrs.	8 Yrs.	9 Yrs.	10 Yrs.	11 Yrs.	12 Yrs.	13 Yrs.	14 Yrs.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
39	35	36	37	.....	.....	.....	.....	.....	.....	.....
40	37	38	39	.....	.....	.....	.....	.....	.....	.....
41	39	40	41	.....	.....	.....	.....	.....	.....	.....
42	41	42	43	44	.....	.....	.....	.....	.....	.....
43	43	44	45	46	.....	.....	.....	.....	.....	.....
44	45	46	46	47	.....	.....	.....	.....	.....	.....
45	47	47	48	48	49	.....	.....	.....	.....	.....
46	48	49	50	50	51	.....	.....	.....	.....	.....
47	.....	51	52	52	53	54	.....	.....	.....	.....
48	.....	53	54	55	55	56	57	.....	.....	.....
49	.....	55	56	57	58	58	59	.....	.....	.....
50	.....	.....	58	59	60	60	61	62	.....	.....
51	.....	.....	60	61	62	63	64	65	.....	.....
52	.....	.....	62	63	64	65	67	68	.....	.....
53	.....	.....	.....	66	67	68	69	70	71	.....
54	.....	.....	.....	69	70	71	72	73	74	.....
55	.....	.....	.....	.....	73	74	75	76	77	78
56	.....	.....	.....	.....	77	78	79	80	81	82
57	.....	.....	.....	.....	.....	81	82	83	84	85
58	.....	.....	.....	.....	.....	84	85	86	87	88
59	.....	.....	.....	.....	.....	87	88	89	90	92
60	.....	.....	.....	.....	.....	91	92	93	94	97
61	.....	.....	.....	.....	.....	.....	95	97	99	102
62	.....	.....	.....	.....	.....	.....	100	102	104	106
63	.....	.....	.....	.....	.....	.....	105	107	109	111
64	.....	.....	.....	.....	.....	.....	.....	113	115	117
65	.....	.....	.....	.....	.....	.....	.....	.....	120	122
66	.....	.....	.....	.....	.....	.....	.....	.....	125	126
67	.....	.....	.....	.....	.....	.....	.....	.....	130	131
68	.....	.....	.....	.....	.....	.....	.....	.....	134	135

AVERAGE WEIGHT FOR HEIGHT FOR GIRLS

Height, Inches	5 Yrs.	6 Yrs.	7 Yrs.	8 Yrs.	9 Yrs.	10 Yrs.	11 Yrs.	12 Yrs.	13 Yrs.	14 Yrs.
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
39	34	35	36	.....	.....	.....	.....	.....	.....	.....
40	36	37	38	.....	.....	.....	.....	.....	.....	.....
41	38	39	40	.....	.....	.....	.....	.....	.....	.....
42	40	41	42	43	.....	.....	.....	.....	.....	.....
43	42	42	43	44	.....	.....	.....	.....	.....	.....
44	44	45	45	46	.....	.....	.....	.....	.....	.....
45	46	47	47	48	49	.....	.....	.....	.....	.....
46	48	48	49	50	51	.....	.....	.....	.....	.....
47	.....	49	50	51	52	53	.....	.....	.....	.....
48	.....	51	52	53	54	55	56	.....	.....	.....
49	.....	53	54	55	56	57	58	.....	.....	.....
50	.....	.....	56	57	58	59	60	61	.....	.....
51	.....	.....	59	60	61	62	63	64	.....	.....
52	.....	.....	62	63	64	65	66	67	.....	.....
53	.....	.....	.....	66	67	68	68	69	70	.....
54	.....	.....	.....	68	69	70	71	72	73	.....
55	.....	.....	.....	.....	72	73	74	75	76	77
56	.....	.....	.....	.....	76	77	78	79	80	81
57	.....	.....	.....	.....	.....	81	82	83	84	85
58	.....	.....	.....	.....	.....	85	86	87	88	89
59	.....	.....	.....	.....	.....	89	90	91	93	94
60	.....	.....	.....	.....	.....	.....	94	95	97	99
61	.....	.....	.....	.....	.....	.....	99	101	102	104
62	.....	.....	.....	.....	.....	.....	104	106	107	109
63	.....	.....	.....	.....	.....	.....	109	111	112	113
64	.....	.....	.....	.....	.....	.....	.....	115	117	118
65	.....	.....	.....	.....	.....	.....	.....	117	119	120
66	.....	.....	.....	.....	.....	.....	.....	119	121	122
67	.....	.....	.....	.....	.....	.....	.....	.....	124	126
68	.....	.....	.....	.....	.....	.....	.....	.....	126	128

It is estimated that at least 35% of the school children in the U. S. are definitely undernourished. It is not contended that every child whose weight does not conform to these standards is necessarily underweight or in poor health. A variation of 10% between the ages of 5 and 10 years and 15% in children between 10 and 14 years is not considered abnormal. There are many factors to be considered in every case but if your child is underweight try to find the reason and remove the cause if possible.

"Undernourished children are usually more susceptible to disease. Try to keep your child healthy and strong."

SAMPLE MENUS FOR CHILDREN 6 TO 14 YEARS OF AGE

Breakfast	Dinner	Supper
	SUNDAY	
	Roast fowl or beef	
Orange or grapefruit	Mashed potato & gravy	Clam chowder or oyster stew
Oatmeal	Creamed peas	Brown bread & butter
Poached egg on toast	Apple sauce	Fresh or canned fruit
Milk or cocoa	Ice cream	
	Plain cake	
	MONDAY	
Stewed prunes	Swiss steak or goulash	Creamed celery or asparagus
Farina	Mashed potatoes	Baked potato
Bacon	String beans or buttered beets	Bread and butter
Buttered toast	Bread & butter	Junket or gelatine
Milk	Custard	Milk
	TUESDAY	
Stewed figs	Beef stew of vegetables	Milk toast or steamed rice & milk
Cream of rye	Lettuce or cabbage salad	Fresh or canned fruit
Scrambled egg	Bread and butter	Plain cake or milk
Bread and butter	Tapioca pudding	
Milk	**WEDNESDAY**	
Orange	Meat loaf	Cream of potato or tomato soup
Shredded wheat	Escalloped potatoes	Rye bread & butter
Bacon	Spinach or beet greens	Baked apple
Buttered toast	Bread and butter	Milk
Milk or cocoa	Rice pudding	
	THURSDAY	
	Pot roast of beef	
	Mashed potato & gravy	Cottage cheese
Stewed apricots	Creamed cauliflower or baked squash	Bread & butter
Cream of barley	Bread & butter	Fresh or canned fruit
Milk toast	Bread pudding	Ginger bread
	FRIDAY	Milk
	Baked halibut or salmon loaf	Baked rice with tomato or spaghetti & tomato
Orange or grapefruit	Baked potato	Whole wheat bread and butter
Pettijohns	Creamed carrots	Fruit sauce
Soft boiled egg	Bread and butter	Cookies
Bread and butter	Chocolate pudding	Milk
Milk	**SATURDAY**	
Stewed prunes or peaches	Vegetable soup	Omelet
Cornmeal mush	Macaroni and cheese	Bread and butter
Toast with milk	Stewed tomatoes	Fruit salad
Gravy	Bread and butter	Plain cake
Milk or cocoa	Fruit gelatine and cream	Milk

These menus are merely offered as suggestions and do not include all the appropriate dishes for children at this age. The nature of the diet is indicated, however, and suitable variations may be made to meet the ordinary requirements.

HOW TO BATHE THE INFANT

Daily tub bath removes waste materials from baby's skin—Plenty of water is best for the baby's health and comfort. His body must be kept clean all the time.

The skin is full of little openings called pores which give off waste matter. When the baby's body gets clogged up with dirt, this waste matter cannot escape very easily. Much of it will stay in the body, and so make the baby sick.

For this reason, the baby is given a tub bath every day. A tub bath is better than a sponge bath, for then the baby is not so liable to catch cold.

Until the baby is three months old, the water should be the same temperature as the blood. This is 98 degrees. Use a small thermometer to see that the water is right before you put the baby in. If this isn't handy, test with the bare elbow, not the hand.

Have everything ready before the baby is undressed. Then wrap him in a small blanket or large bath towel while washing his face.

Before putting the baby into the tub, wash his face, head and ears, being careful not to get soap into his eyes and mouth. Very little soap is needed for baby's skin.

It should be rinsed thoroughly. Pat the skin dry with a soft towel, taking care to dry well back of the ears and in the soft folds of the neck.

Lay a bath towel in the bottom of the tub and put only a small amount of water in at first, so as not to frighten the baby. If it is suddenly plunged into a tub of water, it becomes frightened, and may never enjoy a tub bath.

Add the water slowly and, in the meantime, attract the baby's attention to something else. It will soon learn to enjoy its morning dip.

Place him in the bath after thoroughly soaping the entire body. Support the baby while in the tub with the left hand and arm.

Sponge the entire body with the right hand, then lift the baby out, and wrap him in a bath towel. Dry carefully with the soft towel, patting the skin gently. Never rub the baby's skin with anything less smooth than the palm of the hand.

The baby's bath should be given as nearly as possible at the same hour each day, at least an hour after feeding. At first, it should only last about three minutes, and as the child grows older and stronger, he may be allowed to play in the water for about 15 minutes.

A little pure talcum powder may be used in the creases and folds of the skin, under the arms, and around the buttocks—but it should not be used too freely.

THE CARE OF THE TEETH

The teeth appear in two sets, the first or temporary teeth (20 in number) and the second or permanent teeth (32 in number). The first tooth usually appears between the ages of six and eight months, though some variation from this may be present without being abnormal. The lower front teeth are the first to appear. The first permanent teeth appear at about six years of age and are called the six year molars. Watch for the appearance of these teeth and do not allow them to decay as so often happens, the parents thinking that they are temporary teeth.

In no instance is it more apparent that "an ounce of prevention is worth a pound of cure" than in the care of the teeth. Contrary to a rather popular conception the temporary teeth should receive the same attention as the permanent set. If this is neglected the temporary teeth decay, resulting in aching or abscessed teeth which in time must be extracted. The loss of these teeth so early in life is unfortunate for a sound set of teeth is essential for the proper mastication of the food.

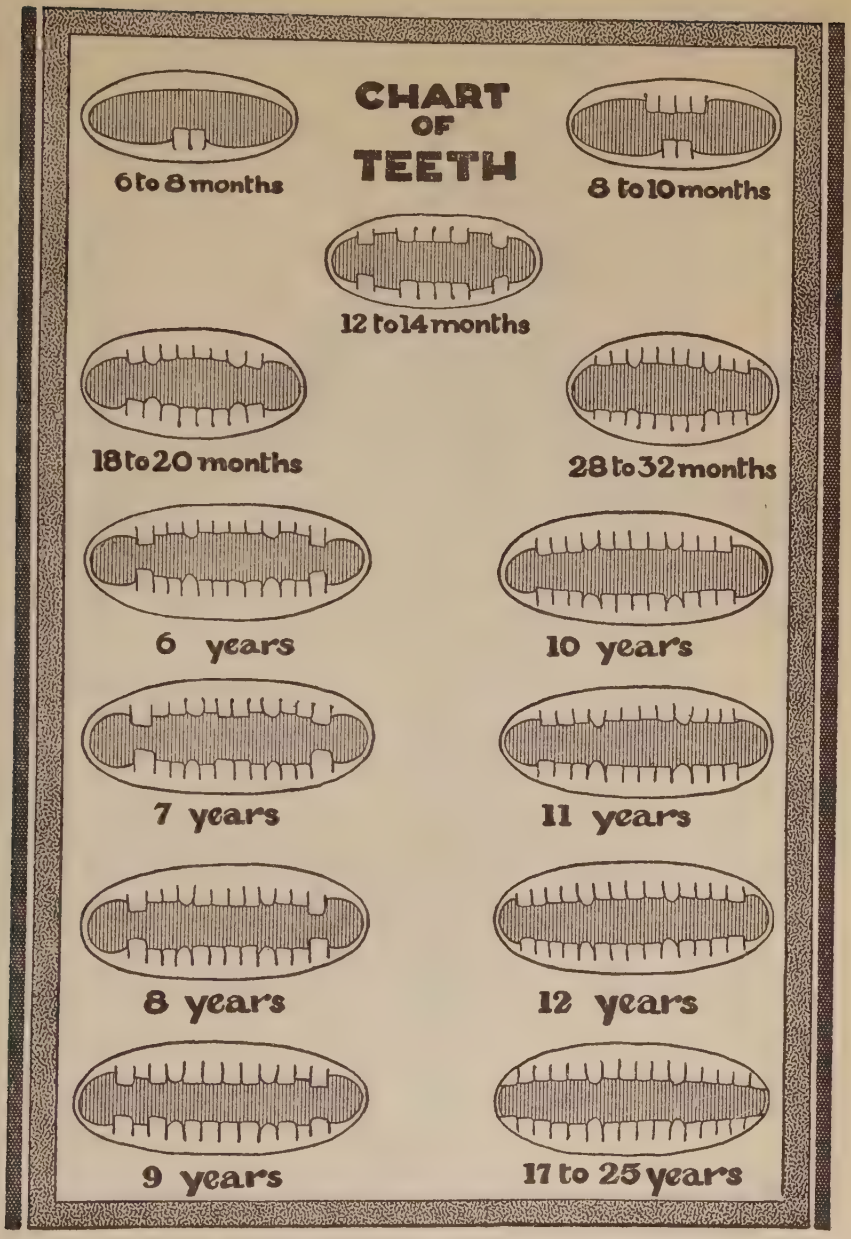


CHART
OF
TEETH
6 to 8 months
8 to 10 months
12 to 14 months
18 to 20 months
28 to 32 months
6 years
10 years
7 years
11 years
8 years
12 years
9 years
17 to 25 years

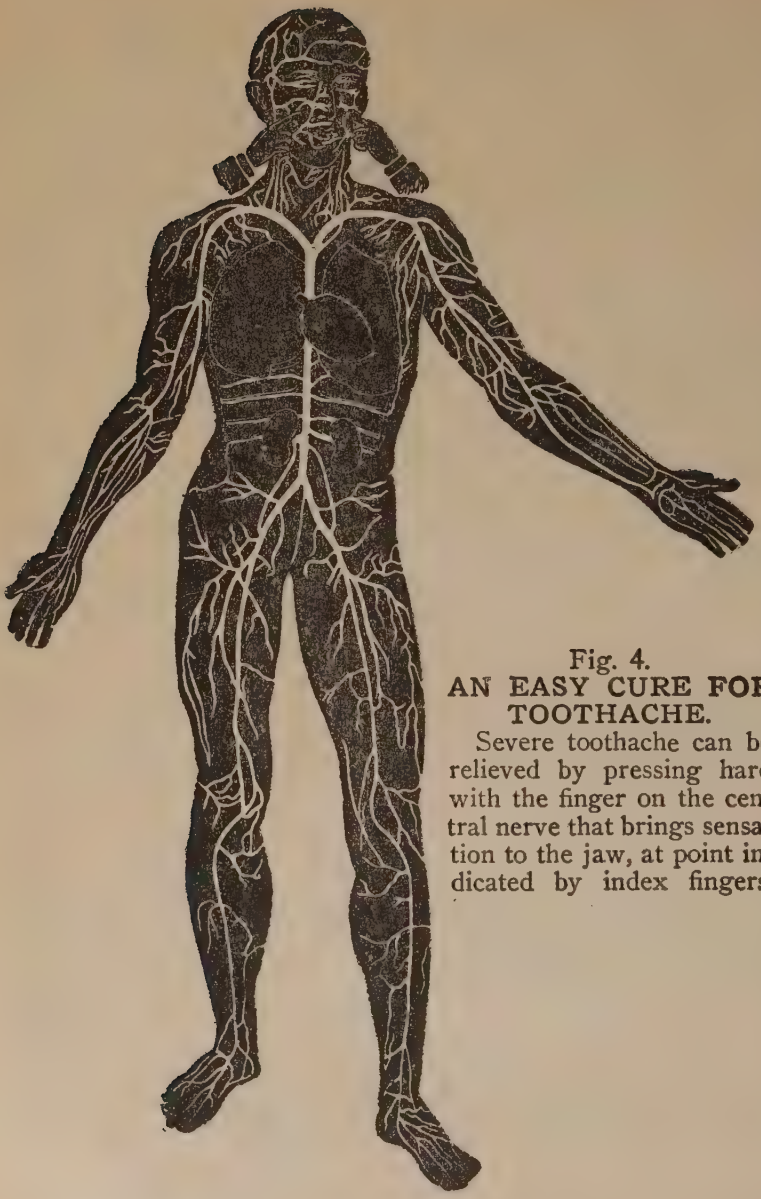


Fig. 4.
AN EASY CURE FOR TOOTHACHE.

Severe toothache can be relieved by pressing hard with the finger on the central nerve that brings sensation to the jaw, at point indicated by index fingers.

Abscessed teeth are furthermore an actual menace to health for from them germs and poisons may be picked up by the blood and carried to various parts of the body, particularly to the joints and heart.

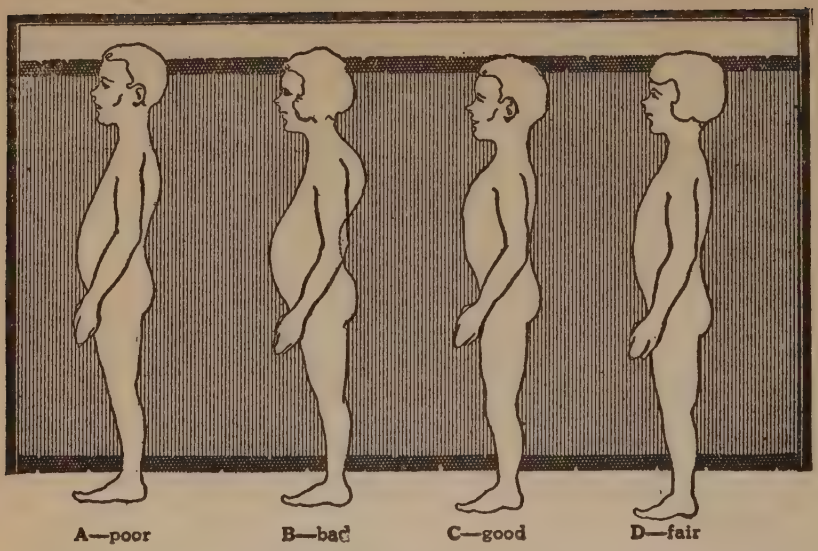
From the standpoint of cleanliness the mother should be concerned about the condition of the child's teeth. In our enlightened age we demand the utmost degree of cleanliness in our food. Everything must be sanitary and rightly so. We buy our food in sealed packages and in the home it is prepared, with an additional effort, in such a way as to preserve this high standard of cleanliness. We insist on clean hands and a clean table before eating and yet many children, as well as adults, take this clean food over which so much effort has been expended and grind it up with decaying teeth. Thoroughly mix it with millions of germs, with foul decaying vegetable matter and after it has been thoroughly mixed with all of this filth it is swallowed. Is this consistent? It is just as important to teach a child to keep its teeth as it is its hands clean. At least this much may be said that dirty hands do not decay and dirty teeth usually do. Brushing the teeth should be part of the daily routine and if begun early will soon become a fixed habit. The teeth should be brushed at least once daily and the mouth rinsed after each meal. Take your child to the dentist at least twice each year and have the teeth inspected. The teeth should be filled when the first signs of decay appear. *Do not wait until the tooth aches,* it is then probably too late to save it.

It is said that *"three fourths of the crooked teeth are caused through the neglect of the first or temporary set."* This is brought about by the fact that these first teeth, through lack of care, have to be extracted too soon thus not aiding in the development of the jaw and permitting the permanent teeth to come through in abnormal places. The care of the first teeth is therefore important from the standpoint of the child's future appearance. Remember "no face is so beautiful but bad teeth will mar it, nor is any face so homely that well preserved teeth will not lend an aspect of refinement." We fear that many children now growing up will in the future have just cause for censuring their parents for the neglect of their first teeth. Take your child to your dentist and discuss the matter with him. Dental authorities say that *"one dollar spent on the first teeth means ten dollars saved on the second."*

To Regulate the Bowels of Teething Children—Take of

Turkey-rhubarb.....2 teaspoonfuls.
Spearmint.....2 "
Baking soda.....1 "

Pulverize the rhubarb and the spearmint, and mix all together. To a teaspoonful of this mixture, add one teacupful of boiling water, strain. Dose, one teaspoonful, night and morning. This is one of the best preparations in use, for regulating the bowels of teething children, and has been the means of saving the lives of many infants.



A—the head is forward of the chest, and the chest is flat. The abdomen is relaxed and is beginning to protrude in front of the chest. The curves of the spine are exaggerated.

B—the abdomen is protuberant, and the back curves are exaggerated to the extreme. The child is shorter than normal, his shoulders are drooping and rounded, and he has a tired, "slouchy" appearance.

C—the head is held straight above the chest. The chest is carried up and forward. The abdomen is held in or flat, and the back curves are normal.

D—the head is a little farther forward, and the chest is not held quite so high.

Standing—Practice many times a day drawing yourself up to your full height. Feel tall. Draw in the chin, pull up the chest, draw in the waist so as to flatten the back, and feel the weight chiefly upon the front part of the feet.

Walking—Try to maintain the same position—swing along with the body held tall as if you owned the town, not as if you were ashamed of your town or of yourselves.

Sitting—Keep the trunk of the body in the same position as when standing; do not bend at the waist line; do the bending at the hips. Lean backward or forward as much as you choose, but do not buckle in the middle.

Lying Down—Lie flat, get rid of the pillows. Lie upon the back, or face, or side, as best suits you, but do not curl up. Give your organs a chance to work properly, especially at the times of rest. Sleep will be quieter and you will wake in the morning rested, with snap and "pep" enough to tackle the tasks of the day and make hard jobs seem easy.

DIVISION EIGHT

MEDICAL PLANTS, OR MATERIA MEDICA.

Directions how to prepare and use all the Medical Plants now known, including about one hundred new ones.

In this division we give directions for preparing and using all the medical plants now known, together with their botanical description and with the addition of a large number that are new, and have not as yet been commonly employed in medical practice.

During the past ten years there have been more discoveries of medical plants and greater progress made in applying them to the cure of disease, than during any previous similar period of time. We are, therefore, now enabled to give about one hundred more medical plants than have heretofore been offered to the public. If the acquisition and presentation to the public of new and important remedies is a matter of worth and merit, then we may justly claim a superior excellence for this department of the book, over anything heretofore presented.

AGAR.

Agar is prepared from seaweed. It absorbs water and swells into an indigestible mass in the intestine, acting as a natural stimulus to peristalsis or wave movement by its bulk.

ACHILLES—Milfoil *(Yerba De San Juan.)*

Part used—The plant.

The whole herb is medicinal. The active principle, extracted both by water and alcohol, is commonly used as an infusion for suppression of hemorrhages and profuse mucous or catarrhal discharges; hence much used in uterine diseases. It is an active remedy for flatulent colic. In fevers as a cooling drink it assimilates Aconite. It is prepared by the infusion of an ounce of the dried leaves; pour on them one pint of boiling water; let it stand covered till cool; strain. Drink a swallow or two when thirsty.

Description—A perennial herb from a foot to eighteen inches high; double pinnate, downy, minutely divided, leaves whitish, flowers blossom in June, July and August.

Indigenous in Europe and United States. Procured only at drug stores.

ACONITE—Monk's Hood (*Aconitüm Napellus*).

Part used—The whole plant.

This is one of the most valuable remedies in the Materia Medica, in all cases of fever. It is an invaluable remedy in neuralgia, nervous affections, inflammatory rheumatism, some forms of palsy, dropsy, etc.; being more frequently useful in the treatment of disease than any other drug in the whole list of remedies. The tincture is the preparation of the root; it is most commonly employed, and should only be used when bought at a reliable drug store where it will have been accurately prepared. It is too poisonous to admit of inexperienced handling. Dose, from half a drop to four drops every two or four hours. It is a poison and should never be given in large doses.

The tincture diluted with water and applied externally, and at the same time administered internally, acts very promptly in quinsy, and other forms of inflammatory sore throat.

It is a native of Europe and is cultivated in gardens in this country.

ACETIC ACID (*Acidum Aceticum*).

Its vapor inhaled into the nostrils, is valuable in headache. It will cure warts and corns when applied to them.

One pint, added to six of water, makes a valuable article of vinegar.

It is a very sour liquid, clear and colorless; strong taste, and rather agreeable odor.

ALOES (*Aloe Perfoliata*).

Part used—The inspissated juice of the leaves.

Some of the principal diseases for which Aloes is employed are constipation, suppressed menstruation, dyspepsia, thread-worms, diseases of the liver and headache. Dose, in constipation, from one-half to two grains; for obstructed menstruation, five to ten grains twice a day. Dissolving the aloes in warm water, then using as an injection, will expel the thread-worm. Aloes should never be used in pregnancy, nor by any one afflicted with the piles.

Found only in drug stores.

AGRIMONY, Cocklebur, Stickwort (*Agrimonia Eupatoria*).

Part used—The entire plant.

The leaves are very useful in jaundice and scurvy. It is also recommended in fevers and asthma, taken in a strong decoction, sweetened with honey. A tea of the root and herb is reputed to be a cure for scrofula by its free and persevering use.

Description—This plant has a yellow blossom, growing on a long terminal spike, which is a continuation of the main stem; producing a small green burr which sticks to clothing that comes in contact with it. It grows from one to two feet high. It is found in most parts of the United States, yet it is not what is generally known as the troublesome "cocklebur."

ALUM (*Alumen*).

A strong solution of alum is valuable as a gargle in sore throat, and falling of the palate. The solution in powder is useful for checking bleeding of the nose, not alone that but also any hemorrhage where it can be directly applied, and given with equal parts of molasses or honey in teaspoonful doses, repeated every ten or fifteen minutes, is an admirable remedy for croup. Dried or burnt alum sprinkled on proud flesh will remove it. It is prepared by being placed on a hot shovel, or any metallic substance, and allowed to remain until the ebullition or boiling ceases, after which it is pulverized. A solution of alum is an excellent remedy in almost all cases of itching piles, applied twice a day. The solution is used also as a wash for preventing venereal diseases. As a remedy for the cure of falling of the womb, it has few equals. It is also very excellent in leucorrhea. In these diseases, it is to be employed as an injection. It is very astringent, and often used with success in diarrhea and dysentery, and also in night-sweats, given in doses of twelve or thirteen grains, or fourth of a teaspoonful, repeated every four hours. It makes a good mouth wash. It is an emetic if given in large doses, but should not be used for that purpose as it destroys the teeth.

ALUM-ROOT (*Heuchera Americana*).

Part used—The root.

The decoction is useful in ulceration of the mouth and throat, and as an injection in bleeding piles and leucorrhea; it has also been given internally in diabetes. The powdered root is a good application to foul ulcers and wounds. The extract is used in diarrhea and dysentery. Dose of the decoction, a wineglassful three times a day.

Description—It has a rose-colored or purplish-white flower. The root has a powerful astringent taste, is knotty, and of a yellowish color.

ALLSPICE (*Myrtus Pimenta*).

Allspice is an excellent, agreeable and safe remedy for bowel complaints. It is very frequently combined with other preparations for this purpose. To two tablespoonfuls of it, add one of cinnamon bark, two teaspoonfuls of cloves and one pint of water, boil half an hour, and while hot, add three tablespoonfuls of sugar. It is to be given cold, in doses of from one-half to a tablespoonful, according to age, every three or four hours. This remedy will seldom be found to be surpassed in the treatment of these diseases. For hoarseness, boil two tablespoonfuls of cloves for twenty or thirty minutes, in half a pint of water; use as a gargle frequently, and at the same time take a small portion of it internally. It is usually prompt and effectual.

ALVELOZ (*Euphorbia Heterodoxa*).

Part used—The milky juice of the plant.

The prepared juice is supplied in the six-ounce vials in which it was imported, and is used as a remedy for the cure of cancer. At Pernambuco after it has been well painted on the tumor it is covered with a tobacco leaf. It may be used with a sublimate or vaseline-and-borax dressing. The application to be repeated once in three days.

Supplied by Parke, Davis & Co., Detroit.

AMBER (*Succinum*).

This is regarded as a fossil resin, the product of an extinct plant. There is an oil prepared from it called the oil of amber, which has been successfully used in whooping-cough, and in painful menstruation; it is also employed in kidney disease, and in hysterics. Dose, from five to ten drops, repeated every hour or oftener, when necessary. Amber is common to both this country and Europe. It is a translucent, resin-like substance, brittle and of a yellowish color, and may be had at any drug store.

AMERICAN SARSAPARILLA (*Aralia Nudicaulis*).

Part used—The root.

This is a substitute for the foreign sarsaparilla. It is a very

valuable remedy in all constitutional diseases, as a blood purifier. In spyhilis, scrofula, skin diseases, etc., it is used with success. Dose, of the decoction or sirup, from two to four tablespoonfuls, three times a day.

Description—Height, one to two feet; roots large, long and soft, with sweetish, aromatic taste; bearing several bunches of yellowish-green flowers, followed by clusters of small berries resembling, to some extent, the common elder-berry.

Found in rich soils and rocky lands in all parts of the United States.

AMERICAN HELLEBORE, Swamp Hellebore,

Indian Poke *(Veratrum Viride)*.

Part used—The root. The tincture is a good remedy in erysipelas and inflammatory rheumatism, neuralgia and gout. It is also used in active pneumonia, bronchitis, pleurisy and enlargement of the heart. But it should never be given in the latter stages of pneumonia. It has often cured convulsions in child-bed fever, and in such cases where the pulse is full and hard, it may be relied on as a positive remedy. Dose, one to two drops, every two or three hours. Large doses continued may produce dangerous consequences. In administering this medicine the patient should be closely watched, and when the pulse begins to recede, or if nausea or vomiting occurs, it is a signal of alarm, when the administration should be stopped. Thus given, it is a prompt remedy in inflammatory diseases. Dose, for children, one-fourth to one-half a drop, according to age.

Description—This is a perennial plant, growing in moist places, and having numerous yellowish-green flowers, from May to July. The roots should be collected in autumn. As the name would imply, it grows in abundance throughout the United States.

AMERICAN IVY, False Grape, Virginia Creeper

(Ampelopis Quinquefolia).

Parts used—Bark, leaves and twigs.

This plant is reputed a remedy for dropsy, and has been used with success in scrofula, diseases of the skin and bronchitis. Dose of the fluid extract, from fifteen to thirty drops three times a day; of the saturated tincture, from thirty to sixty drops; of the decoction, from one-half to a wineglassful. This vine is found running along fences and climbing trees in most parts of the United States.

AMERICAN IPECAC, Wild Ipecac, Spurge.

(Euphorbia Corollata.)

Part used—The root.

This is said to be a speedy and certain remedy for bilious colic, taken every half hour, in doses of ten to twelve grains, until relief is obtained. It has been effectively used in dropsy. Dose, five to ten grains, three times a day. It is employed also in suppressed menses, dyspepsia and fevers.

Euphorbin is the active principle of this plant; in night-sweats and lung-diseases it is given in very small doses—about one-twentieth of a grain, four times daily. In diabetes, it is used combined with helonine; dose, as an emetic, five to eight grains; as a cathartic, three to five grains. As an alterative and diaphoretic in diabetes, from one-fourth to one-half a grain.

The American Ipecac is common to most of the States.

AMERICAN SENNA *(Cassia Marilandica).*

Part used—The leaves.

These are a safe and certain cathartic and may be substituted for the foreign senna, in one-third larger doses.

This is a perennial plant, common to the United States and growing in low, moist situations.

ANGELICA *(Angelica Archangelica).*

Parts used—The roots, stems and seeds.

The tea of the root is very useful for allaying nervous headache and relieving the pain caused by flatulence, or wind in the stomach. It is also recommended for pains in the breast and feeble digestion. The infusion may be drunk freely.

Usually found cultivated in gardens, from Canada to Carolina.

ANISE SEED *(Pimpinella Anisum).*

These are very efficacious in dyspepsia, and to expel wind from the stomach and relieve colicky pains and griping. A tea may be given, in doses of from one teaspoonful to a tablespoonful, and repeated often. This is one of the ingredients in the much used Paregoric.

For dyspepsia, the oil, dropped on sugar, is preferable to the tea. Dose, two or three drops. Of the essence, five to ten drops.

It is found commonly cultivated in gardens.

ANTI-EMETIC ROOT, ADRUE, (*Cyperus Articularis*).

Part employed—The herb.

A strong infusion or decoction is used in Jamaica as a specific in restraining vomiting in yellow-fever. It has a fine aromatic flavor, and produces a feeling of warmth and comfort in the stomach. Dr. Cowen, M. R. C. S., recommends its use as a fluid extract, containing as little alcohol as possible, in doses of 20 to 30 drops in a little water. In atonic dyspepsia this will be found a safe and pleasant remedy.

Found only in drug-stores.

APPLE TREE BARK (*Pyrus Malus*).

The fluid, as well as the solid extract of this bark, possesses power to alleviate the paroxysms of ague or other periodic forms of fever. It is not equal to the other barks employed for this purpose, yet it may often be used when they cannot be obtained. Dose, of the tincture, from five to thirty drops every two hours during the chill; of the fluid extract, about the same, or perhaps a little less.

ARNICA (*Arnica Montana*).

Tincture of arnica is commonly employed for external purposes, as for wounds, bruises and sprains. Add one teaspoonful to a tumbler of cold water, mix well, and occasionally apply this to the wound. It will be found one of the best remedies for relieving pain. For internal bruises, give the patient two or three drops of the tincture, every three hours, and continue as long as the symptoms seem to require it. It is often applied with success in rheumatism of the joints, and pains of the feet caused by walking.

Arnica is a poison and should therefore never be used internally in large doses.

Obtained only at drug-stores.

ARBOR VITÆ (*Thuja Occidentalis*).

Part used—The leaves.

Fluid extract of the leaves, dose, one-fourth to one fluid drachm. This drug seems to have given excellent results as a substitute for calisaya in the treatment of malarial diseases. Dr. Schoepf recommends it for intermittent and remittent fevers, coughs, scurvy and rheumatism. Bandages soaked in the fluid extract (diluted) and applied to venereal excrescences, will often remove them if frequently renewed. The same treatment will be of value for cancer.

ous affections. The extract made into an ointment with vaseline is good for rheumatism.

An evergreen tree, which grows in America.

ARLANTHE ELONGATA (*Matica*).

Part used—The leaves.

It is employed in catarrh, gonorrhea, excessive menstruation, catarrh of the bladder and leucorrhea. For catarrh it is very superior and regarded by some practitioners as almost an infallible remedy. The infusion is to be snuffed up the nostrils, and at the same time the tincture should be taken internally. For gonorrhea, excessive menstruation and catarrh of the bladder the infusion is employed by injection, and usually with good success. It is a very prompt remedy in arresting catarrhs and bronchitis, and likewise for external wounds, in which case the under side of the leaf is to be applied to the wound, or the finely powdered leaves applied. Dose, of the tincture, one to two teaspoonfuls three or four times a day; of the infusion, one tablespoonful, of the fluid extract twenty to thirty drops, three times a day.

Procured only at drug-stores.

ASAFŒTIDA-PLANT (*Ferula Asafœtida*).

Part used—The gum.

When spasms and constipation have weakened the powers of life and the functions are performed in a languid manner, asafœtida generally affords effectual relief, as it promotes digestion, enlivens the spirits and increases the natural motions of the intestines. Its action on the bowels is quick and penetrating, affording great and speedy relief in hysterics and convulsions, and especially when the bowels are constipated. It has been used in hooping-cough and to expel worms. It may be employed by enema. Dose, one pill the size of a pea; of the tincture, ten to fifteen drops, and repeated as the circumstances of the case may appear to require. The tincture is found prepared in drug-stores, or can be made by dissolving an ounce of asafœtida in a gill of alcohol, and then filtering. The tincture, employed by enema, is reputed an effective means of expelling the thread or pin-worm.

Found only in drug-stores.

BAEL-FRUIT (*Belæ Fructus*).

It is a remedy that is very useful in diarrhea and dysentery with debility of the mucous membrane, and other diseases of the

bowels, which it relieves without producing constipation. In its native country, India, it is largely used in acute and chronic cases of these diseases. Dose, of the fluid extract, one-half to one teaspoonful.

Found only in drug-stores.

BALM (*Mellissa Officinalis*).

Part used—The tops.

A tea of this plant is useful in painful and obstructed menstruation, and is valuable in fevers, and as a cooling drink. The tea may be drunk freely, and especially in febrile diseases, as it causes perspiration and promotes the action of other diaphoretic medicines.

Cultivated in gardens.

BALM OF GILEAD (*Populus Candicaus*).

Parts used—The buds and bark.

It is used, mainly in affections of the lungs, coughs, and kidney-complaint and also employed in scurvy, and said to be a cure for piles. Dose of the tincture, from two to four teaspoonfuls, three times a day. The tincture of the bark is useful in rheumatism and gout. The buds are commonly employed for making healing salve for all wounds.

Balm of Gilead trees grow in many parts of this country, from fifteen to thirty feet high, bearing buds that contain a balsamic gum, of a bitterish taste but an agreeable odor.

BALMONY, Snake-Head, Turtle-Head, Bitter Herb (*Chelone Glabra*).

Part used—The tops.

It is a valuable vermifuge, and is regarded by some physicians as having no superior in expelling worms. One ounce of the dry herb should be made into an infusion and drunk during the day, and may be followed by a suitable purge. A tea of the leaves is given for jaundice, piles, boils and sores. It is a bitter tonic and among the best medicines there are to promote the appetite. This forms the foundation of "*Kennedy's Medical Discovery.*" It is also used as a remedy in the cure of dyspepsia and is thought to be better when employed with sugar-of-milk. Dose of the saturated tincture, ten to thirty drops two or three times a day.

Description—It grows from two to four feet high, with a square stem; the flowers are generally white, though of different

colors in different varieties, as white spotted with red, and purplish; and of a singular shape, resembling the head of a snake with its mouth open. The leaves are of a dark-green color and intensely bitter.

It grows everywhere in low, wet situations and on the banks of streams.

BALSAM OF PERU (*Balsamo del Peru*).

Part used—The resinous juice.

When this is made into an ointment with equal parts of tallow, it forms an excellent addition to simple liniment for sore breasts, ring-worms and indolent ulcers.

It is used in coughs and chronic diseases of the lungs, and is also valuable in leucorrhea, gonorrhea and gleet.

It acts specially on the mucous membranes of the system, and is successfully used in chronic mucous inflammation of the stomach and bowels. Dose, fifteen to thirty drops three times a day.

Found only in drug-stores.

BALSAM OF FIR (*Pinus Balsamea*).

Part used—The resinous juice.

This balsam is in high repute for diseases of the lungs and for coughs. It is very valuable for strengthening the nervous system and especially good for cleansing and healing internal ulcers. It will cure leucorrhea and venereal complaints when taken in the first stages, and is applied externally, for healing wounds and ulcers. Dose, internally, from twenty to thirty drops, two or three times a day. For coughs, five to ten drops three times a day, given on a little sugar.

The fir-tree from which this gum is obtained grows very plentifully in most parts of the Northern States and on the Pacific Coast.

BALSAM COPAIBA (*Copaifera*).

Part used—The resinous juice.

This Balsam is often a most effectual remedy in leucorrhea and gonorrhea, being usually combined with such articles as sweet spirits of nitre, oil of almonds and spirits of turpentine in about equal parts and taken in teaspoonful doses three or four times a day. It is also employed in chronic dysentery, irritation of the bladder and bronchitis. Dose, twenty to forty drops, three times a day. It

is an admirable remedy for croup, especially membranous croup. As an external application, it is useful in fistulous ulcers; also in indolent ulcers and chilblains. It is also used internally in chronic catarrh and painful piles.

Found only at the drug stores.

BALSAM OF TOLU (*Myrospermum Toluiferum*).

Incisions are made on this tree, from which the juice exudes, somewhat similar to the sap of the sugar-tree. Continued exposure of it to the atmosphere renders it hard and brittle, like rosin. It is employed in coughs, chronic catarrh, bronchitis, asthma, gleet and diseases of the lungs of long standing. It is generally combined with other medicines. The dose is from ten to twenty-five grains.

Found only in drug stores.

BARBERRY (*Berberis Vulgaris*).

Parts used—Bark and berries.

A tea of the bark mixed with hard cider, taken in doses of three or four tablespoonfuls three times a day, is an admirable remedy for jaundice. The juice of the berries taken freely will generally cure the bloody flux and diarrhea that often accompany typhus fever. Attacks of putrid fever attended with diarrhea have been entirely cured by simply eating the berries and drinking the juice. The juice is also an admirable remedy for checking heat, quenching thirst, keeping up strength and preventing putrefaction in malignant fevers.

The shrub grows in various parts of United States and has bark of a yellow color, bitter to the taste. The berries have a pleasant acid taste and ripen in June.

BAYBERRY (*Myrica Cerifera*).

For the typhoid dysentery that is so prevalent at some seasons of the year this is generally a successful remedy. Give a drachm of the powder every three or four hours. Used as a snuff it will cure polypus of the nose. It is successful in the treatment of jaundice and scrofula. It has been used as a remedy in scarlet fever with good success, and also as a gargle in putrid sore throat. For dysentery and diarrhea it has been administered with success in the form of a decoction, in teacupful doses, three times a day. The decoction applied externally, for ulcers and sores, is very efficacious.

Description—Bayberry is one of the most valuable medical plants of our country, and is found growing in almost every state. Height, from four to twelve feet; flowers appear in May, followed by berries, green at first, but in the fall they assume a dull-white color. The leaves are narrow and tapering at the base; the upper part of the leaf is a glistening green. The stems are covered with a grayish bark, thickly branched at the top.

BAYCURU (*Statice Brasiliensis*).

Part employed—The root.

Recently introduced from South America. Is one of the most powerful astringents in the vegetable kingdom. May be used for all the purposes for which kino and catechu are employed, but its special indication is as an application to apthous and ulcerative affections of the mouth and pharnyx, to ulcers and scrofulous sores, and as an injection in leucorrhea. Dose, of fluid extract of the root, five to thirty drops.

Procured only at drug stores.

BEAR'S FOOT (*Polymnia Uvedalia*).

Parts used—The root and top.

This is one of the most important remedies in use for the treatment of white swelling. It had been used with uniform success for years, during which time it was kept a secret. It has effected cures, in many instances, after all other means had been tried in vain. The mode of preparing it is to boil the root in lard and make it into an ointment, with which the swelled parts are to be anointed two or three times a day, and at each time cover them with flannel and heat the parts with an iron, in order to facilitate the absorption of the ointment.

Attention has been called to it as a remedy for enlarged spleen and as an alterative in scrofula. It is a good remedy in old, chronic cases of rheumatism, given internally and used as ointment; it is also a good alterative. Use a saturated tincture made by adding eight ounces to one pint of alcohol (96°). Dose, from ten to thirty drops every four hours.

Description—Roots very abundant, large and long, enlarging as they proceed from the common head so as to resemble in some degree a small sweet-potato, blackish outside and whitish within. Stems frequently several together, growing five or six feet high, bearing leaves the size of a man's hand and very much resembling in shape the foot of a bear, whence its name.

BEBEERINE, from the Bebuructra (*Beburina Sulphas*).

It is prepared in glittering scales of a brownish-yellow color, possesses a direct effect upon the womb and is invaluable for congestion of that organ which results in profuse hemorrhage. It is said to act more promptly in checking excessive flow of the menses than any article in the materia medica. It not only controls the hemorrhage, but if taken in small doses in the interval, prevents its recurrence. For this purpose two or three grains, in pills, may be given every two or three hours. As an antiperiodic it may be given in five-grain doses every two hours, until twenty to thirty grains have been taken.

Found in drug stores.

BEET.

Part used—The root.

For most forms of gravel the common garden-beet is an infallible remedy. It is prepared by boiling a quantity of the beets until the juice is thoroughly obtained. Then remove and boil this liquid down to almost a syrup and drink freely of it four or five times a day.

It is also said that this beet syrup will bring on menstruation, in most difficult cases of suppression. Take a half teacupful three times a day until the change comes. It acts very mildly, but quite efficiently, in all cases of these obstructions. The beets should boil slowly for several hours.

BEECH-DROPS, Cancer-Root (*Epifagus Americanus*).

Parts used—Tops, stems and roots.

This plant has been successfully used in that terrible scourge of mankind, the cancer. Hence the name. An infusion of the tops and roots is to be used both internally and externally. Dose, a wineglassful three times a day.

It is used with success when applied to obstinate ulcers and will be found valuable in sore mouth, erysipelas, diarrhea, and especially in asthma. The decoction or infusion may be taken very freely every three hours. Dose of the powder, twelve to fifteen grains.

Description—This has more the appearance of a fungus-growth than a living plant. It appears in stems, eight to sixteen inches high, divided into numerous branches, having no leaves, but

a few scales. The whole plant is of a yellowish, or light-brown color. The root has a bunch of short, crooked fibers at the bottom.

It is usually found under beech-trees.

BELLADONNA, Deadly Night Shade (*Atropa Belladonna*).

Part used—The leaves.

It is exceedingly valuable in nervous diseases, as well as many others. It is considered a preventive of scarlet fever by some practitioners and is invaluable for this purpose. Give, of the extract, from one-eighth to one-half a grain, once or twice a day; of the powdered leaves, one grain. Belladonna will be found a very useful remedy in neuralgia, spasms, convulsions, St. Vitus's dance, whooping-cough, rheumatism and all nervous affections. Dose of the extract, from one-eighth to one half a grain; of the powdered leaves, one to two grains, once or twice a day. The symptoms should be carefully observed and the medicine administered with caution, as it is a narcotic poison.

Found in drug stores.

BENNE LEAVES (*Sesamum Indicum*).

Part used—The leaves.

They are exceedingly good in bowel complaints, diarrhea and flux. The leaves form a nutritious, healing mucilage on being soaked in cold water, half a dozen leaves to one quart of water, then used as a drink. Whenever there is any predisposition or tendency to bowel complaints, either in children or adults, it will at once prevent its further development. This mucilage is to be drunk in all forms of this disease. If its virtues were more generally known it would be employed to a much greater extent than it is. It is easily administered to children for it is not unpleasant to the taste.

The plant is cultivated in gardens.

BETH-ROOT, Read Leaf, Ground Ivy, Cough Root (*Trillium Latifolium*).

Part used—The plant and root.

An infusion of this and equal parts of blood-root is said by some physicians to be a certain cure for inflamed carbuncles and ulcers, applying at the same time a poultice of the former.

An infusion of the root is employed in various hemorrhages, such as bleeding from the kidneys, bladder and uterus, also spitting

of blood, etc. It is good in coughs, asthma, diarrhea and night-sweats. The infusion is made by adding a pint of boiling water to a tablespoonful of the powder; of this use freely. Dose of the powdered root, one teaspoonful, repeated often.

Description—Height, six to twelve inches, three leaves at the top and one terminal flower, either white, red, purple or mixed color; the root is thick, wrinkled, somewhat like that of the ginseng.

It is found growing in rich soils and bottom lands in most parts of the country.

Bishop's Root (*Ptychotis Ajowan*)

Part used—The fruit.

Carminative, antiseptic, used in flatulence, colic, diarrhea and atonic dyspepsia; also in Asiatic cholera. Dr. Waring recommends it in dipsomania and chronic alcoholism. Dose of fluid extract of the fruit ten to thirty drops.

Found only at drug stores; supplied by Parke, Davis & Co., of Detroit.

BITTER-ROOT, Milk-Weed (*Apocynum Androsæmifolium*).

Part used—Bark of the root.

This is a celebrated remedy among the Indians, for the cure of venereal diseases, and is regarded as almost infallible. And it has been very effective in dyspepsia and chronic affections of the liver. It usually acts promptly in constipation. Dose of the powder, twenty to thirty grains. If it cause too great action of the bowels, the dose should be lessened. A wash made by steeping the root in water is good for scald-head and ulcers. When used as an alterative to act on the liver, or for dyspepsia, give ten grains twice a day; of the extract, five to six grains. This remedy has been latterly employed by some practitioners for nervous headache, for which it is said to be one of the most prompt and effectual remedies in use. It is also highly praised for rheumatic gout of the joints. Dose of the fluid extract, ten to twenty drops, repeated every three or four hours.

Description—Height, from three to four feet; stalk, of a reddish color; flowers, white and in loose clusters. The root is usually larger than the stalk, running deep into the ground. It is of common growth, has a thick bark, which is the part used as a medicine, and is of a disagreeable, bitter taste.

BITTER-SWEET, Woody Night-Shade (*Solanum Dulcamara*).

Parts used—Root and twigs.

It is employed in jaundice, rheumatism, syphilitic affections, kidney troubles, scaly cutaneous diseases, and in obstructed menstruation. A very valuable sirup for scrofula is prepared from the twigs of bitter-sweet, stillingia and yellow-dock root, each equal quantities. Made into an ointment with lard, it forms an excellent remedy to scatter painful tumors, and is among the best preparations available for application to ulcers.

Description—Stem shrubby, zigzag, climbing along trees, slender, vine-like, seldom exceeding seven or eight feet in length, with leaves of a dull-green color. When fresh these stems have an unpleasant odor, which they lose by drying. It bears clusters of elegant purple blossoms. It is a common growth in hedges and thickets, especially in moist situations.

There is another vine called *Bitter-sweet*, a description of which will be found under "Staff-Vine."

BLACK LOCUST (*Robinia Pseudacacia*).

Parts used—Bark of the root and the leaves.

The bark is cathartic and the leaves emetic. Steep a half-ounce of the leaves in a half-pint of water; if this be given in doses of half a teaspoonful every fifteen minutes, it will act as an efficient emetic. To one ounce of the root add a quart of water; boil down to nearly one pint: a tablespoonful of this given night and morning acts as a cathartic, and is frequently used as a substitute for butternut.

This is a well-known indigenous tree found in most of the States.

BLACKSNAKE ROOT—Sanicle (*Sanicula Marilandica*).

Part used—The root.

The Indians regard this as a sovereign remedy for rattlesnake bites. They take a handful of the roots and boil them in about a pint of water and drink it in divided doses in the course of a half-hour. At the same time they prepare a decoction of the leaves, and apply to the bitten parts. It is universally regarded as a great blood purifier and often taken as spring bitters. It is also valuable for the cure of hives, sore throat and croup. It has been very successfully used in St Vitus's dance and intermittent fevers. Dose of the decoction from half to a pint taken during the day; of the

powdered root, from half to teaspoonful three times a day, according to age. It is excellent to quiet and strengthen the nerves.

Description—It is found in thick woodlands growing from one to three feet high. The root is small, fibrous and black. The leaves grow at the top of the long, naked stem, and five in whole general stem rise from the same root. The flower-stem rises higher than the leaf-stem, and bears a few white flowers.

BLACKBERRY *(Rubus Villosus).*

Parts used—The berries, leaves and roots.

This plant is exceedingly valuable in chronic diarrhea, dysentery, cholera-infantum and summer-complaints of children and often cures when all other means fail. The decoction of the root may be used freely, four or five times a day. The ripe fruit makes an excellent sirup. In preparing it add a litle cinnamon and after simmering for a short time add white or loaf-sugar; while hot, strain, and when cool add a few tablespoonfuls of brandy. Dose, from one teaspoonful to two tablespoonfuls according to age, four or five times a day. Blackberry-jelly and jam are both valuable for all bowel-complaints. The decoction is exceedingly valuable as an enema, in falling of the womb, leucorrhea, gleet and hemorrhage of the womb. Water flavored with the sirup is a very salutary drink for patients during fevers as well as in the convalescent stage.

BLACK HAW *(Viburnum Prunifolium).*

Part used—Bark of the root.

A decoction of this plant will generally cure chills and fever. It is an almost infallible remedy in cases of threatened abortion, and is, therefore, of especial value for women who are subject to miscarriage, acting, as it does, as a specific tonic on the womb. Tablespoonful doses of the decoction should be used three times a day. Its use for this purpose should be commenced two or three weeks before the expected recurrence of the misfortune and continued for about two weeks beyond the period. It usually gives speedy relief in palpitation of the heart, and is a valuable agent in diarrhea and dysentery and as a gargle in ulcers of the mouth and throat. It is frequently administered internally to allay the severity of afterpains. Dose of the decoction, a tablespoonful three or four times a day; of the tincture, a teaspoonful.

Description—It is a small tree, ten to twenty feet high, found in most of the States, bearing the fruit known as black haws, which are of a jet-black color.

BLACK-ROOT, Culver's Physic, Bowman Root

(Leptandra Virginica).

Part used—The root.

It is celebrated as an efficient purgative medicine. It operates with mildness and certainty, without producing that depression of the powers of the system so common to other purgative medicines. In fevers, it removes the morbid matter from the bowels without weakening their tone, or leaving behind that poisonous sting so often remaining after the use of calomel. It is used very effectually in the cure of pleurisy and also in some forms of dyspepsia. As a cathartic in dysentery, it is one of the best medicines known, when given in moderate doses. It would be well to combine it with a little rhubarb in such cases. It should be given in decoction, in doses of three or four tablespoonfuls, and repeated every three hours until it operates. Does of the powder, as a cathartic, twenty to forty grains.

Leptandrin—Is the extract made from this root, and may be used in all cases in its stead, and is generally preferable to it. It is regarded by some practitioners in medicine as a complete substitute for blue-mass in case of liver complaints, without producing any of its injurious effects. It is almost a sure cure for bloody flux and dysentery. Dose for a grown person, about one grain, and repeat in eight to twelve hours. Generally two or three doses will effect a cure for children, from one-fourth to three-fourths of a grain. Dose as an alterative, for liver-complaint, one grain, once a day; as a cathartic, four to five grains.

Liver Medicine—In dyspepsia and torpid and diseased liver, take one ounce of black-root, two ounces of golden seal and two of senna, to a quart of water, and boil to a pint. Of this, from one to two tablespoonfuls may be given three or four times a day, and the quantity increased if it fail to operate gently, or diminished if it operate too much. The action on the bowels should not be more than perceptible. In this you have a remedy very far superior to most of the popular medicines.

Description—It is found in rich soils, rising three to four feet high, smooth stalk, with four to seven leaves coming out opposite each other at different points on the stalk; when in bloom it has a number of long tassels on its top, resembling corn-tassels.

BLACK-WILLOW, Pussy-Willow *(Salix Niger).*

Parts used—Bark of the roots and stems, the leaves and twigs.

A tea made of a handful of the bark of the roots and drunk freely will cure almost any case of bloody-flux or dysentery. It is very effectual for chills and fever, and often used in dyspepsia and

general debility. The bark, bruised or in powder, in combination with charcoal powder, makes a very superior remedy in all cases of gangrene or mortification, to be applied in the form of a poultice; at the same time taking a small portion of the tea internally. This poultice is also very efficient for foul and indolent ulcers. When it becomes necessary to suppress sexual desire, the buds and twigs made into tea or decoction and drunk freely will accomplish this purpose. The decoction of the willow has cured the most inveterate cases of erysipelas, and as an application in this disease it is seldom surpassed. Dose of the decoction, from two to three tablespoonfuls three times a day; of the powdered bark, one teaspoonful.

Salicin in Rheumatism—Salicin is the active principle of the willow. In reference to its use in rheumatism, Dr. J. H. Haley, of San Francisco, says that it is one of the most valuable remedies we have for this disease, when given in ten-grain doses, three times a day. It is often employed as a substitute for quinine, and can be had at all drug-stores.

Description—Height, from five to twenty feet; has a dark, rough, outside bark, while the branches are of a light-yellow color. It is found along the banks of water courses, small streams and wet lands. Some authors make a distinction between the black and the pussy-willow in this; that the former is of a darker color, and has longer branches than the latter. But as regards the practicability of this distinction, it is immaterial, as both varieties contain the same medical properties.

White Willow (*Salix alba*)—This species contains the same medicinal properties as the black willow given above; which *see*.

BLACK WALNUT (*Juglans Nigra*).

Parts used—The bark, leaves and green nuts.

A strong tincture of the leaves and nuts is highly extolled as a remedy in the treatment of bilious and cramp colic. Dose, one to two teaspoonfuls every twenty or thirty minutes until relieved.

An infusion of the leaves is a sovereign remedy in scrofula and many cases have been cured with it. Two handfuls of the leaves should be used to one quart of water, in preparing the infusion, and a gill of this, after being sweetened with sugar, should be drank during each day. It may be necessary to continue using this for several months. The dry leaves may be used when the green cannot be had. A tincture of the nuts or leaves applied externally, is said to be almost a certain cure for tetter, and at the same time a portion should be taken internally. The rind of the walnut applied to the parts is also used for this purpose.

Found in almost all parts of the United States.

BLACK COHOSH, Squaw Root, Blacksnake Root, Rattle Weed (*Cimicifuga Racemosa*).

Part used—The root.

This plant is regarded by some physicians as one of the best agents in use for whooping-cough. Two tablespoonfuls of the tincture, together with the same amount of the tincture of blood-root and lobelia and sirup of squills, constitute one among the best cough-medicines in use. Dose, one teaspoonful every three or four hours.

The tincture has been successfully employed in St. Vitus's dance, and in asthma and delirium tremens. It is likewise employed in neuralgia, consumption, acute rheumatism, scrofula and leucorrhea. It is used in female complaints. Dose of the tincture, twenty to sixty drops, three times a day; of the fluid extract, from a half to two teaspoonfuls.

Equal parts of the extract of high-cranberry bark and the fluid extract of black cohosh will promptly cure persons afflicted with cramps. It is used by the Indians as an antidote for the bite of snakes, for which purpose it is bruised and applied to the wound; and at the same time a little of the juice is to be taken internally. It is very highly extolled for the treatment of small-pox. For facilitating child-birth it is almost equal to the blue cohosh, having the same effects.

In nervous rheumatism there is, perhaps, no remedy more prompt in its action than black cohosh. Its eliminating tendencies make it an admirable remedy for scarlet fever and measles. The tincture should be made from the fresh root, or that which has recently been dried, two ounces to a half-pint of alcohol (96°). The dose is from five to fifteen drops, four times a day.

Description—The root is black, with a large head, and many long fibres; stem from three to six feet high, terminating in a spike of white blossoms, which appear in June and July. It is found in rich, open woods, particularly on rich hill-sides and adjoining fields.

Macrotin—This is the concentrated active principle, and made from the root of this article. For the measles, scarlet fever and small-pox, it is one of the best preparations known to keep the eruption to the surface, and also to determine or cause it to come to the surface of the skin. Dose, from one-half to one grain, two or three times a day.

BLESSED THISTLE, Holy Thistle (*Centaurea Benedicta*).

Part used—The leaves.

It is valuable to strengthen the digestive organs in dyspepia and intermittent fevers. Dose, of the infusion, half a teacupful, three times a day. It should be taken cold.

Dr. Liedbeck reports cases of the enlargement of the liver, and also of gall-stones in jaundice, cured with this plant. Dose, of the saturated tincture, from ten to fifteen drops, three times a day.

Grows in gardens.

BLACK BIRCH, Sweet Birch, Spice Birch (*Betula Lenta*).

Part used—The bark.

This is an excellent tonic, and made into a sirup or tea, is one of the most valuable remedies there is in restoring the strength and tone of the bowels after dysentery. It should be drunk freely four or five times a day. It will also remove female obstructions.

BLACK ALDER, WINTER BERRY (*Prinos Verticillatus*).

Parts used—Bark of the root and stalk.

The decoction has been successfully used in jaundice, liver-complaint and intermittent fever, taken in wineglassful doses, three times a day. A decoction of black alder, made into a poultice with powdered elm-bark, is among the best preparations in use for foul ulcers and sores. It is combined with sarsaparilla, burdock or sassafras, to form an alterative sirup. An infusion of the bark of the root of black alder and golden seal is a superior remedy in dyspepsia. Of this infusion, take four ounces of the former and one of the latter, mix, take a wineglassful cold before each meal, and one on going to bed at night.

Description—It is a small shrub, of a crooked shape, growing usually five or six feet high, with a bluish-gray colored bark. It has small white flowers during the month of July, followed with small red berries about the size of a pea in the fall and winter. It is found by the sides of marshy streams, ponds, in swamps and marshy woods.

BLOOD ROOT, Red Puccoon, (*Sanguinaria Canadensis*).

Part used—The root.

The powdered root is a sovereign remedy for croup. An infusion of the fresh root is used with great success in curing tetter, warts and ringworm. The powder will remove proud flesh. When used as a snuff, it has removed polypus of the nose. It is said to be valuable in coughs, colds and disease of the lungs, and consump-

tion in its incipient stages. It is successfully used in diseases of the liver, combined with equal parts of dandelion and mandrake. It is a curative agent in scrofula, and in all cases of impure conditions of the blood. It is also useful in the first stages of pneumonia or lung-fever and in jaundice. Dose of the tincture, from twenty drops to a teaspoonful, three times a day; of the powder, three to five grains; as an alterative, one to two grains, twice a day. It is an excellent snuff, in case of headache and cold in the head. The tincture has been used with success in dyspepsia and dropsy of the chest. The fluid extract has been used with benefit as an injection in vaginal leucorrhea. For tetter, warts, etc., a strong decoction should be used externally, while using the same internally. The herb is narcotic, and should never be taken in large doses.

Description—It is a perennial plant, and early in the spring rises but a few inches high, with several smooth stems coming up together, and a large smooth leaf, with one white flower to each stem. The root is bulbous, as thick as the little finger, and usually three or four inches long, red and full of juice of the same color.

BLUE FLAG (*Iris Versicolor*).

Part used—The root.

It is employed in syphilis, scrofula, dropsy of the chest, chronic rheumatism, liver-complaint, diseases of the spleen, diseases of the kidneys and dyspepsia. It is a very good vermifuge and is now regarded by some practitioners as one of the most positive remedies in secondary syphilis. It is a valuable remedy in all diseases of the blood. Internal and external application has been known to cure bad cases of hip disease. The tincture should be made of the fresh root bruised, four ounces to half a pint of alcohol (76°). Dose of the tincture, from fifteen to thirty drops; of the extract, one to four grains, three times a day.

Description—The Blue Flag is a perennial plant, growing in wet lands and meadows and along the edges of creeks, having blue and whitish flowers.

BLUE COHOSH, (*Caulophyllum Thalictroides*).

Part used—The root.

This herb is especially valuable in epileptic fits and ulceration of the mouth and throat. In the latter it may be used alone or in combination with golden seal. It is of especial service for rendering child-birth less painful and tedious. It imparts tone and vigor to the womb. A tea of it should be drunk for the last three or four weeks of pregnancy, when it has been found in many cases to almost entirely relieve the patient of pain in child-birth. A

decoction is also used for colic, cramps, hysterics and rheumatism. The dose of the decoction is from half to two-thirds of a teacupful three times a day; of the tincture half to a teaspoonful.

Description—This is a perennial plant, growing in low, moist, rich land, attaining a height of two or three feet. It is divided at the top in two or three branches, each branch supporting three leaves, in the center of which come out the flowers, which are small and of a yellowish green color.

BLUE GUM, Health-Tree (*Eucalyptus Globulus*).

It is a new remedy, and has proved to be an important acquisition to the materia medica. Among the diseases in which it is employed are croup, diphtheria, bronchitis, asthma, piles, neuralgia, malarial diseases, catarrh, in sub-acute or chronic inflammation of the genito-urinary organs, ulcers and sores. It has proved an effectual remedy in some cases of rheumatism. In the section of country where it grows it is a popular remedy with the inhabitants for chills and bilious fever. The mode of using it in asthma is to smoke the leaves after being dried. For the piles, the parts are washed with a decoction of the leaves. Dose, of the tea of the leaves, from one-half to one teacupful three times a day. A favorite preparation is the fluid extract. Dose, from thirty drops to a teaspoonful, three times a day; of the solid extract, from three to ten grains; of the sugar-coated pills, from one to four, three times a day. In reference to the eucalyptus, Dr. A. B. Woodward observes, "As a local application for ulcers and wounds, it has no equal, and for suspicious leucorrheal discharges, it is one of the best articles; say one to two drachms in one-half pint of tepid water, injecting it slowly; and for toning up weakened and prolapsed uteri, there is no better remedy than eucalyptus—equal parts of fluid extract eucalyptus and spice-bush leaves and bark, used in the strength above mentioned."

This tree possesses, in a great measure, the power of destroying miasmatic influence in fever-stricken districts. Medical journals give account of pestilential fevers being entirely abated in different parts of Europe by the cultivation of groves of these trees.

BLUE LOBELIA (*Lobelia Cardinalis*).

Part used—The root.

This herb is most valuable as a remedy in the treatment of diarrhea and dysentery. The dose is from a half to a teaspoonful of the pulverized root, taken in water and repeated if necessary. This is said by some who have used it to be a certain remedy in the above complaints. Some western physicians report it as a decided success in the cure of dropsy. It is used as a cough mixture taken

in sirup or honey, and physicians give it a high reputation for the cure of cancer of the breast. The patient should take four tablespoonfuls of the decoction, three times a day and the cancer should be poulticed with the powdered root wet with this decoction. It should be made warm and used as the wash in changing and renewing the poultices. In all ulcers and wounds which have a tendency to terminate in gangrene and mortification the application of this plant in decoction is one of the foremost remedies.

Description—The roots are white, fibrous, and ten inches long; stem erect, hairy towards the top; from one to three feet high, terminating in a spike of large, pale-blue blossoms; leaves large, finely indented on the edge, with unequal teeth.

It is found growing generally in wet or moist lands.

BOLDO-LEAVES (*Penmus Boldo*).

The new South American tonic. In France this remedy has been especially employed in cases where there had existed chronic torpor of the liver, and in cases of atony of various organs, where quinine could not be tolerated. Dr. Baremba recommends boldo in gonorrhea, rheumatism and dyspepsia. Dose, of the fluid extract, one to five drops, to be increased.

BONESET, Thoroughwort, Feverwort, Indian Sage, Ague-Weed. (*Eupatorium Perfoliatum*).

Parts used—Top and leaves.

For bilious colic, especially when it is attended with obstinate constipation, it is usually a speedy and reliable remedy. Give a teacupful of the cold infusion every half hour, until it acts on the bowels. It is said to be a valuable antidote for the bite of snakes; and a tea of it, taken freely, will relieve colds and rheumatism in its first stage. It is very efficacious in fevers, remittent, intermittent and typhoid, and is perhaps more effective and valuable in fever and ague than in any other. It has been used with success in dyspepsia and general debility. In domestic medicine Boneset ranks above all other indigenous growths, possessing such a variety of merit that it should be constantly kept in every family. Dose of the infusion, from one-fourth to a teacupful three times a day; of the extract, two to four grains, in which form it is more pleasant to take. If taken warm, in large doses, it will produce vomiting; in small doses, perspiration; taken cold, in large doses, it acts as a mild purgative, and in small doses, as a tonic.

Description—Boneset grows very plentifully in all parts of the United States, in low, moist and damp lands; growing from two

to five feet high. The leaves are so formed as to give the stem the appearance of penetrating them through the center and standing out crosswise. When in bloom, it has a large, bushy top of white flowers.

BORAGE (*Borago Officinalis*).

Parts used—The leaves and flowers.

It is employed as a blood-purifier and in putrid and malignant fevers. It is used as a gargle for canker-sore mouth and inflamed tonsils and throat. Decoction of the flowers or leaves or both may be used, and drunk freely.

Description—It commonly grows in old fields and waste lands, bearing very beautiful blue flowers, and is often cultivated in gardens.

BORAX (*Sodæ Boras*).

Two parts of borax and one of cream of tartar, for some forms of gravel, is one of the best remedies known. They should be pulverized and two ounces of the former, and one of the latter added to one and a half pints of soft water. Dose, two tablespoonfuls, four or five times a day. Its use must be avoided during pregnancy.

BROMIDE OF AMMONIUM.

Prof. Goss says, "This article seems to exert a very kindly influence upon certain disorders of the nerve-centers. In that peculiar, irritable condition of the brain, originating from overwork, in which the patient cannot sleep, this is the remedy *par excellence*. It will be found efficient, also, in asthma. It acts promptly in early stages of epilepsy and convulsions of children. It is frequently prescribed by physicians in any form of nervous excitation from whatever cause and its happy quieting effects are marvelous. Dose, from five to twenty grains.

BUCHU (*Diosma Crenata*).

Part used—The leaves.

In inflammation of the bladder, kidneys or urethra, or irritation of these organs, it is a very useful remedy. It prevents the tendency to formation of stone in the bladder. It is used in the treatment of catarrh of the bladder and in dropsy. It possesses the peculiar power of removing from the cavities superfluous fluid,

which makes it useful in all forms of dropsy. Prof. Wilson says, "I have frequently used the tincture, or fluid extract, in chronic gonorrhea and gleet with most prompt success." Its chief excellence is in its curative effects upon the genito-urinary organs. Its medicinal merit places it above praise. Dose of the fluid extract, ten to twelve drops, every four hours; of the powder, ten to fifteen grains, three times a day; of the infusion, half a teacupful.

Found in drug stores only.

BUGLEWEED, Water Bugle, Water Hoarhound, Sweet Bugle (*Lycopus Virginicus*).

Parts used—The leaves and stems.

It has been successfully used in checking hemorrhages both from the lungs and stomach and has the reputation of curing consumption in its first stages. It is employed in diabetes or excessive discharge of urine and has cured this complaint when other means failed. It is also used in diseases of the heart, chronic diarrhea and dysentery. Dose of the infusion, one-fourth to a half a teaspoonful three times a day; of the powdered leaves, from one to two teaspoonfuls.

Description—When fresh, it has a smell somewhat like turpentine, and a slightly bitter and disagreeable taste, and is of common growth near water-courses, swamps, etc.

BUCKTHORN (*Rhamnus Catharticus*).

Parts used—The bark and the berries.

The berries are an active cathartic, rather severe, and not much used for that purpose. The strong tincture of the bark is a valuable alterative in scrofula, syphilitic affections and skin diseases. Dose, twenty drops, three times a day; of the fluid extract, from five to ten drops.

Naturalized in America and sometimes found cultivated. Procured at drug stores.

BUCKTHORN-BRAKE (*Osmunda Regalis*).

Part used—The root.

It is mucilaginous and tonic. The mucilage mixed with brandy is a very common and usually successful remedy for sprains and weak back; to be applied externally, three times a day. It is said to be almost a certain cure for the rickets, prepared as follows:

Place two or three roots in a quart of hot water and infuse for half an hour, when it will become a thick mucilage or jelly, and of this give a wineglassful four times a day. It is also valuable in leucorrhea. It is very good in coughs and diarrhea.

This herb grows in moist lands and is rather a beautiful fern, and should be gathered in the latter part of the summer.

BURDOCK (*Arctium Lappa*).

Parts used—The root and seeds.

An infusion of the seeds or of the roots of burdock, drank freely, is an excellent remedy for boils, stys and felons. It has been very effective in curing scurvy, scrofula, early stages of syphilis and diseases of the kidneys. A pint of the infusion may be drunk in the course of twenty-four hours. The pulverized seeds, taken in doses of two teaspoonfuls, three time a day, have cured dyspepsia. It is valuable in rheumatism, dropsy and all diseases of the skin and blood. The leaves will be found very useful in fevers, by bruising and applying to the forehead and bottoms of the feet. The seeds are a very valuable blood purifier, either when used alone or combined with sarsaparilla, in equal parts. This plant is used with good success in curing all forms of tetter, but especially dry tetter. Dose, of the tincture, from thirty to sixty drops, four times a day.

Description—Its height is from two to three feet, with very large leaves and purple flowers; having burs which stick to clothing when it comes in contact with them.

BURGUNDY-PITCH.

This is the concrete juice, hardened and purified, of the Norway pine. A pure article is difficult to obtain. It is an excellent application for the whooping-cough, applied in the form of a plaster over the chest and stomach. For rheumatic swellings and weak back, it is highly useful as a plaster, which should be spread on a large piece of soft leather and worn as long as it will stick. This plaster is often used with great advantage for pains in the chest.

Found in drug-stores.

BUSH-HONEYSUCKLE (*Diervilla Trifida*).

Parts used—The root, leaves and twigs.

They have been employed with benefit in inflammation of the bladder with gravelly deposits in the urine, disease of the kidneys

and gonorrhea. The root has been recommended in syphilis, in the form of a decoction. The cold infusion may be drunk freely.

It grows in almost all parts of the country.

BUTTERNUT (*Juglans Cinerea*).

Parts used—Bark, bark of the root and leaves.

Some medical authors say it is the best cathartic that can be employed for dysentery, diarrhea and worms, leaving the bowels in better condition than almost any other medicine. It is usually employed by adding water to a quantity of the bark and boiling it down until it is reduced to a thick, soft extract and then made into pills by mixing, if necessary, a little wheat-flour with it in order to render it of the proper consistence to be made into pills.

Dose as a cathartic, three or four ordinary sized pills; as a laxative in costiveness, one or two pills twice a day. As a cathartic it is somewhat harsh and drastic, though effective, and should not be used by delicate invalids.

A sirup made by boiling the bark and sweetening to the taste may be used; dose, two or three tablespoonfuls every hour, until it operates on the bowels.

For tetter and other chronic skin-diseases it is reputed an effectual cure. The tincture is to be applied externally, at the time of taking it internally.

When the fluid extract is used, the dose is thirty drops. The use of large doses of this medicine should not be persisted in, as it is liable to produce inflammation.

Juglandin—This is the active principle of the butternut. It is one of the most certain and efficient cathartics, but giving it in over-doses it is liable to produce griping.

It is a mild and certain remedy in consumption, when combined with *Apocynum* (*Bitter Root*). This combination has proven an effectual remedy for expelling the thread or pin-worm. The dose is one-fourth to one-half a grain.

The tree grows in nearly all parts of the United States.

BUTTON-BUSH (*Cephalanthus Occidentalis*).

Part used—The bark.

This is very useful in coughs, colds and diseases of the throat and lungs generally. Dose of the fluid extract, twenty to forty drops; of the infusion, one-fourth of a teacupful three times a day.

BUTTON-SNAKE ROOT, Backache Root, Devil's Bit, Gray Feather (*Liatris Spicata*).

Part used—The root.

It forms an excellent gargle in sore throat, and is valuable in affections of the kidneys and pain in the back. It is to be used freely in decoction, and is good in gleet and chronic leucorrhea. The dose of the decoction is half a teacupful three times a day. In some parts of the country it is considered a sovereign remedy for snake-bite, in which case the fresh root is bruised, moistened with water and applied to the wound, while the patient drinks freely of a strong decoction.

Description—Stem straight; height, from three to four feet; near the top there are buttons or flower-heads, half an inch or more in diameter, to which are attached the flowers, which are small, of bright purple or bluish-red color.

It is found on open lands and prairie countries.

CALIFORNIA LAUREL (*Umbellaria Cerifera*).

Part employed—The root.

Fluid extract of the leaves, in doses of from ten to thirty drops, is highly recommended in nervous headaches, cerebro-spinal meningitis, neuralgia, rheumatism, atonic diarrhea, and bilious headaches.

Found in California; also in the drug stores.

CAMPHOR (*Camphora*).

It is used to allay nervous excitement and to induce sleep in wakefulness and often in disease. In many cases it will cure headache, by taking a piece the size of a pea every half-hour. Its vapor will sometimes arrest the headache and will relieve faintness. It is of much utility in spasms, neuralgia, gout, rheumatism, typhoid fever and in all diseases of debility. The tincture is invaluable for external uses such as pains, soreness of the flesh, sprains, chilblains, bruises, etc. It is made by adding one ounce of the gum to one pint of spirits. The spirits of camphor will check cholera in its first stages, when taken in drop-doses every five, ten or twenty minutes, according to the severity of the symptoms. Dose of the powder, from one to ten grains.

CANCER-ROOT (*Orobanche Virginiana*).

Part used—The whole plant.

This plant has proved an effective remedy for diarrhea, dysentery, and bleeding of the lungs and nose. Dose of the fluid extract, from ten to thirty drops, three times a day.

CARDAMOM-SEEDS (*Elettaria Cardamomum*).

They are chiefly used for wind-colic, either in infusion or tincture. They are also used with other medicines to render them more agreeable to the taste, and frequently chewed to destroy bad breath. Dose of the powdered seeds, from a fourth to one-half a teaspoonful. The oil is more commonly used, the dose of which is from two to six drops. It tends to promote the process of digestion.

Found only in drug stores.

CARNAUBA (*Corypha Cerifera*).

Part employed—The root.

Used as an alterative. Dose of fluid extract of the root, one-half to two teaspoonfuls. Is a more pronounced alterative than sarsaparilla and stillingia, and may be substituted for them with advantage.

Found at the drug stores.

CAROBA (*Jacaranda Procera*).

Part used—The leaves.

An alterative, diuretic-sudorific and tonic, of value in the treatment of syphilis in all its forms. In cases distinguished by pain in the limbs may be combined with iodide of potassium with good effects. Dose of fluid extract of the leaves, fifteen drops to a teaspoonful.

Found only at the drug stores; imported by Parke, Davis & Co., Detroit.

CASTOR-OIL (*Oleum Ricini*).

In consequence of the mildness of its action, this oil is regarded as a good cathartic for delicate persons. For those who are troubled with piles, rupture, inflammation of the bowels, chronic dysentery, it is better than active purgatives, for they are injurious in such cases. There is no better domestic cathartic in common use or known in the entire list than castor oil, except where contra-indicated, as for dyspeptics for whom it is oppressive to the digestive powers. It should not be given to little children who have weak digestive organs. Dose for an adult, from one to two tablespoonfuls. (See Table of Doses for Children).

This oil is made from the seeds of the castor bean; a native of India, but extensively cultivated in the United States.

CARPENTER'S SQUARE, Figwort, Square-Stalk (*Scrophularia Nodosa*).

Part used—The root.

The root is used in scrofula, liver affections, dropsy, obstructed menses and in restoring the lochial discharge when it has too suddenly ceased, taken in the form of a tea or infusion, three times a day. The leaves, either fresh and bruised, or if dry softened with warm water, make a superior application for wounds, bruises and old sores. It makes an excellent healing salve, stewed in lard, with a small portion of beeswax added.

Description—This is a common plant and grows from four to five feet high. It has an erect square stalk, with branches coming out at the joints. The flowers are of a greenish-purple color.

CATNIP (*Nepeta Cataria*).

Parts used—Leaves and stems.

A tea of this plant is a very valuable drink in fevers, to produce perspiration and induce sleep. It has proved efficacious in nervous headache, painful and suppressed menstruation, and will generally relieve children of wind or flatulent colic. Equal parts of warm catnip-tea and saffron are excellent in scarlet fever and small-pox; also, in colds and hysterics. It will relieve painful swellings when applied in the form of a poultice or fomentation. The tea may be drunk freely, but if taken in very large doses when warm, it frequently acts as an emetic. The better way to use it for suppressed menstruation, is to express the juice of the green herb, and take it in tablespoonful doses, three times a day.

Found in all parts of the country.

CASCARA AMARGA *Picramnia Antidesma*).

Part employed—The bark.

Of great value in the treatment of constitutional syphilis, and has been employed with most satisfactory results in cases that have resisted all the ordinary remedies. It may be used with advantage in combination with the usual mercurial treatment. It should be given in teaspoonful doses three times a day for at least a month, in obstinate cases, if it does not sooner effect a cure. Dose of fluid extract, one-half to one teaspoonful; of powdered extract, five to ten grains.

Found only in drug stores; supplied by Parke, Davis & Co., Detroit, Mich.

CEDRON-SEED (*Simaruba Cedron*).

This is used in bilious fever, ague, dyspepsia, and all derangements of the digestive organs. Dose of the fluid extract, one to eight drops, three or four times daily; of the tincture, the same.

CASCARA SAGRADA, Chittim Bark, (*Rhamnus Purshiana*).

Cascara has become thoroughly established as a sovereign remedy for habitual constipation, dyspepsia, indigestion and hemorrhoids, and is regarded as one of the most valuable of recent additions to our materia medica. In speaking of it, C. G. Polk, M. D., Philadelphia, says: "Thus far the accumulated testimony goes a long way in demonstrating its efficacy in obstinate and habitual constipation. No agent heretofore employed has ever given the high degree of satisfaction that has been accorded to this one." The same meed of praise is likewise given for its curative effects in dyspepsia. Dr. C. S. Wright says: "Of cascara sagrada my opinion is that it is the best remedy I ever used for constipation. I have used it in about one hundred cases of constipation, with invariably good results. What I wish to note particularly is in the constipation attendant upon cancer of the stomach. I have prescribed for two of these cases. One of them has been under my observation nearly a year, and the cascara acts like a charm in relieving the bowels."

Dose of the fluid extract, from ten to thirty drops, three times a day.

Cascara Cordial, prepared by Parke, Davis & Co., and sold at drug stores, is a most excellent preparation of this remedy, and more pleasant to the taste than the ordinary extract.

CHAMOMILE (*Anthemis Nobilis*).

Part used—The flowers.

The cold infusion is a good bitter tonic, and taken two or three times a day is valuable in dyspepsia and in all debilitated conditions of the stomach, and useful in female weakness. The herb, bruised and moistened with vinegar, is an excellent application for sprains and bruises.

Dose of the tea, from two to three tablespoonfuls, two or three times a day. The oil of this plant is a good remedy in cramp of the stomach, colic and hysterics. Dose, from ten to fifteen drops, twice a day.

Grows commonly in gardens.

CHAULMOOGRA OIL (*Semen Gynocardiæ*).

This oil is prepared from the seeds of gynocordia odorata, and is administered in doses of ten to thirty drops, gradually increased according to toleration. It is an Asiatic remedy which has been tested during the past three years in England and America, demonstrating its alterative tonic properties in cases of consumption, and its value in scrofula. Its most prominent effects have been observed in its employment in leprosy, psoriasis, eczema and allied skin affections. It is pronounced by all odds the most successful agent yet employed in leprosy, for which it is given internally as well as applied locally.

Procured from Parke, Davis & Co., Detroit, Mich.

CAYENNE PEPPER, Capsicum, Red Pepper (*Capsicum Annuum*).

This is an important remedy in the cholera; when combined with equal parts of salt, say one-half ounce of each to one pint of good vinegar, given in tablespoonful doses, it will stop vomiting, in both cholera and cholera-morbus.

The "Cayenne gargle" is used with admirable success in scarlet fever. Dr. Stephens says that he employed it in nearly four hundred cases with surprising success. He asserts that the ulcers in the mouth soon began to heal and the vital powers assume a more healthy condition. It is to be prepared in the following manner: "Two teaspoonfuls of common Cayenne pepper, and two teaspoonfuls of fine salt; mix them together; pour upon them one-half pint of boiling water; strain, and add one-half pint of good vinegar, when cold, give from half to a tablespoonful to a grown person, every hour, and gargle the throat frequently with it. See "Table of Doses for Children."

The cold infusion is very useful in colds, catarrh and hoarseness and is the best remedy known for catarrh of the stomach.

Dr. Howard says he has found it to be effective in removing female obstructions.

It is employed in fevers, inflammations, piles and liver-complaint.

The tincture or infusion will be found efficacious as a gargle in chronic quinsy. It is often employed to very great advantage sprinkled on foul ulcers, or steeped in vinegar to bathe parts affected with rheumatic pains, as well as all inflamed parts. A weak tea is a very superior wash for sore eyes, applied four or five times a day. When it is desired to produce perspiration, this is one among the best of agents. The warm tea should be given to the patient on retiring at night. Mixed with spirits of turpentine, and applied to kernels or tumors, it will disperse them. A weak infusion is also

valuable in aiding digestion in persons having dyspeptic stomachs.

For colds, it may be used in the form of a tea, or a teaspoonful of Cayenne mixed with molasses, taken in broken doses, during a period of four to five hours. An ordinary dose of the tincture is half a teaspoonful; of the powder, five to six grains.

Of both foreign and native growth.

CENTAURY, Rose Pink, American Centaury (*Chironia Angularis*).

Parts used—Leaves and flowers.

It is very effectual in preventing fevers if taken daily in the form of bitters. A decoction of the leaves will expel worms. Dose, one or two tablespoonfuls, according to age, two or three times a day; repeat for several days. Centaury is tonic and restorative, and is esteemed very highly as a bitter tonic for strengthening the stomach and promoting digestion.

Description—Height, from one to two feet. The flowers are of a beautiful rose-color, an inch or more in diameter and somewhat in the shape of a pink-blossom. Commonly found in meadows, moist lands and fields.

CHARCOAL (*Carbo*).

In many cases of headache, two teaspoonfuls of pulverized charcoal, in half a teacupful of milk, will effectually relieve the patient in a very short period of time, more especially when there is acidity of the stomach. And in cases of costiveness many persons are cured by taking a tablespoonful three times a day. It is of great utility in arresting mortification of the bowels, taken in large doses. It is serviceable in bleeding from the stomach, in intermittent fever, dyspepsia and dysentery. It will usually regulate foul breath. Dose, from one to three teaspoonfuls, three times a day. In urgent cases it may be used every two or three hours. In nausea and vomiting attending pregnancy, half to a teaspoonful, once or twice a day, will afford much relief. Mixed with flaxseed meal it is used with good effect in old sores, when there is an acrid and offensive discharge It is also sprinkled over sloughing ulcers, to promote separation of the decayed parts. Mixed with corn-meal and wet with a strong ooze of oak-bark, it is a good application to parts in a state of gangrene or mortification. Charcoal, prepared from the young shoots of willow, is preferable for most medical purposes. This preparation can now be found in all drug stores.

CINNAMON (*Laurus Cinnamomum*).

Part used—The bark.

For hemorrhages from the womb the tincture of the bark can as a general rule be relied on, given in teaspoonful doses about every ten minutes. The oil is used in toothache. Moisten lint with the oil and insert into the cavity of the tooth. Colicky pains of children are usually relieved by rubbing along the spine a heated mixture of one part of the oil with four parts of olive-oil. A tea of cinnamon will generally relieve ordinary colic and cramps or pain in the stomach. It is also excellent for checking vomiting and sickness of the stomach. Being an important astringent, it is an admirable remedy in all bowel-complaints, as dysentery, diarrhea, cholera-infantum, etc., either alone or in combination with cloves, allspice or blackberry-root. Dose of the tea, two or three tablespoonfuls; of the tincture, from one to five drops.

CHEESE-WEED, MALLOW (*Malva*).

Parts used—The plant and the roots.

A decoction of the roots and tops of this plant, taken freely three times a day, is a very prompt and effectual remedy for the cure of water-brash and also in fevers. In acute forms the decoction should be drunk every three or four hours and at the same time bind the herb as a fomentation on the bottoms of the feet and palms of the hands. The Spanish people assert that they can "break up" almost any case of fever with it. This is a remedy among them for the cure of venereal diseases. The tea is to be drunk freely, four or five times a day. It is an excellent remedy for healing purposes. The better mode of preparing it for this purpose is to make a salve, by stewing it with fresh lard.

It is found in all parts of the country, growing in the greatest abundance.

CHEKAN, AROYAN.

Part used—The leaves.

A Chilian product, the fluid extract of the leaves of which have been introduced as a remedy in catarrhal inflammation of the respiratory mucous lining. Dr. Murrell, of London, especially commends it in winter cough, that annoying and intractable affection of elderly people. Its value as an addition to the list of remedies for chronic bronchitis, has been established. Dose of the fluid extract, one to three teaspoonfuls. If not found at the drug store, may be procured from Parke, Davis & Co., Detroit, Mich.

CHEWSTICK (Gouinia Domingensis).

Part employed—The bark.

The fluid extract of the bark, in doses of from one to three teaspoonfuls is a light and grateful aromatic, bitter tonic, useful in cases of debility and as a stomachic in feeble digestion. Used as a gargle it is at once astringent and soothing in its effect. Diluted in water, it may be employed as a mouth-wash in cases of salivation, or other diseases of the gums, or as a dentifrice imparting tone to the gums.

Found at the drug stores.

CHINESE TEA (Camellia Thea.)

Fluid extract of the leaves of good common tea, through the caffeine it contains is a sustaining and restorative agent, decidedly astringent, and in China is employed mixed with vinegar as a remedy for diarrhea. It is valuable in nervous diseases and exerts a remarkable influence as a restorative in all conditions of fatigue and exhaustion. It is one of the best antidotes in cases of opium poisoning. Diluted with water, it may be employed as an astringent gargle or wash.

Found in drug stores.

CHRISTMAS-ROSE, Black Hellebore (Helleborus Niger).

Part used—The root.

This plant is chiefly used in the various forms of dropsy, especially dropsy of the brain, in the cure of which it is a justly celebrated remedy. Dose, of the fluid extract, three to five drops; of the essential tincture, five to ten drops, three times a day.

Description—This plant flowers from December until March, hence its name, "Christmas Rose." It is an elegant plant, with large, concave flowers, white with a tinge of blush color which are finely contrasted with the ample, dark, shining foliage. The roots are perennial, creeping, very black externally, with numerous long, simple, perpendicular fibres. From this root we obtain a brownish, straw-yellow tincture. It grows on rocky and woody mountains and is cultivated in gardens as an ornamental plant.

COCKLEBUR (Xanthium Strumarium).

Fluid extract of the leaves, dose from one to two teaspoonfuls, is held in high repute as a domestic remedy for bites of poisonous insects and snakes, given freely internally and applied locally to the wound. It is an active styptic and is used internally in hemorrhagic diathesis. In epistaxis and post partum hemorrhage it has been employed as an injection with prompt relief.

Found at drug stores.

COLCHICUM (*Colchicum Autumnale*).

Parts used—The roots and seeds.

In reference to this plant, Dr. I. J. M. Goss, says, "In gout and rheumatism, it is an old and reliable remedy. I now use the essential tincture made by adding six ounces of the seeds or the corms to one pint of alcohol (76°). Dose, from five to fifteen drops; the dose of the fluid extract, five to ten drops." It is also employed in dropsy, palpitation of the heart and diseases of the blood. It should be used with caution, for in large doses it is a narcotic poison.

Found only at drug stores.

CORN SILK (*Stigmata Maidis*).

Part used—The green pistils.

The United States Dispensatory, 15th Ed., p. 1506, says: "Attention has been called by Prof. Castor, of Montpelier, to the diuretic properties of the stigmata of the maize. Although testimony to the contrary has been given, the evidence is so strong as to demand further trial. The stigmata or silk should be taken when the corn has well shed its pollen. It is said to yield 20 to 30 per cent. of watery extract, of which half a drachm or more may be given daily in dropsy. Dr. Vauthier affirms that the active principle is *maizenic acid*, and that the remedy is especially valuable in uric or phosphate gravel.

CLEAVERS, Goosegrass (*Galium Aparine*).

Part used—The whole herb.

There are several species which contain similar medical properties and are used generally in the form of an infusion.

It is an excellent and speedy remedy in suppression of the urine and gravel. It is made by adding three ounces of the herb to two pints of water and letting it stand three or four hours, when it may be freely drunk.

It is regarded as a solvent of stone in the bladder, and a very popular remedy in the treatment of gonorrhœa. The cold infusion will remove freckles when it is drunk two or three times a day, for two or three months, and the parts frequently washed with it, and has recently been used with decided success in treating children for incontinence of urine (wetting the bed). It should be drunk three times a day.

Description—This plant grows from two to four feet high; stem square, slender, having many joints; leaves pointed; flowers small and white. Grows in the woods and on the roadsides.

CHIRETTA (*Gentiana Chirayta*).

Chiretta is recommended in dyspepsia, in the debility of convalescence and generally in cases where corroborative measures are indicated. It has been successfully employed in India in the treatment of intermittent and remittent fever. Dose of the fluid extract, from fifteen to thirty drops.

Found only at drug stores.

COCA LEAVES (*Erythroxylon Coca*).

This is a powerful nerve-excitant, resembling tea and coffee, giving great vigor to the muscular system, sustaining the human frame under extreme exertion and fatigue. It is of value in cases of despondency, debility and broken-down constitutions; also for public speakers and young persons affected with timidity in society. Dose, of the fluid extract, two to three teaspoonfuls; of the solid extract, six to twelve grains; of the sugar-coated pills, two to three. The medical properties of this drug are still under investigation, and it should only be employed under direction of an experienced physician.

Found only at drug stores.

COMFREY (*Symphytum*).

Part used—The root.

The root of this plant, bruised and made into a poultice, is an excellent application for bruises, painful swellings and sore breasts. It is slightly astringent, and therefore very serviceable in diarrhea and dysentery. It is good in bronchitis, coughs, bleeding of the lungs and leucorrhea. A sirup made of equal parts of comfrey and elecampane-roots is a most valuable remedy for coughs, consumption and all affections of the lungs. It may be boiled in water or wine, or made into sirup. Dose, from half to a wineglassful, or more, three times a day.

Grows commonly in gardens.

COLOCYNTH, Bitter Cucumber, Bitter Apple (*Cucumis Colocynthis*)

Part used—The pulp.

This is a very harsh medicine and is not much used now, except in the form of a compound extract, which may be obtained at drug stores. It is employed in congestion of the brain and liver and often used as a cathartic, especially in dropsy. Dose, from five to eight grains.

Found only at drug stores.

CLOVES (*Eugenia Caryophyllata*).

The oil of cloves is used to cure the toothache; a little of the oil may be put on cotton or lint and introduced into the cavity of the tooth. Boil for a short time two or three tablespoonfuls of cloves in half a pint of sweet milk, and give a tablespoonful of this as hot as can be borne every fifteen to twenty minutes and it will very promptly cure cholera morbus. It is very useful for checking vomiting and for allaying nausea, and will relieve wind colic. It is also used to aid digestion. Also employed, with other medicines, to prevent griping, or sickness of the stomach. It may be used freely in the form of an infusion. Dose of the powder, two or three grains; of the oil, one or two drops.

CORN SMUT (*Ustilago Maidis*).

This is used as a substitute for ergot of rye, to increase the regularity and power of the pains in child-birth. It gives less pain to the mother, less danger to her in its administration, and also less danger to the child. It has been pronounced superior to ergot in some kinds of hemorrhages, and is also very efficient in spermatorrhea and some forms of skin-diseases. Dose, ten to twenty drops.

COLUMBO ROOT, Yellow Gentian, Meadow Pride American Columbo (*Radix Columbæ*).

Part used—The root.

It possesses tonic properties and is used in dyspepsia, chronic diarrhea and dysentery, convalescence from exhausting diseases and muscular debility of children. Prof. Rafinesque says, "It has cured a wide-spread gangrene of the lower limbs, by internal use and external application." For the oppression caused by an overloaded stomach, so common with dyspeptics and other weak patients, the powered root is an admirable remedy. Dose, a teaspoonful in water. Taken with cold water adds to the efficacy and prevents any tendency to nausea and vomiting. As a laxative, it is especially valuable for children and the costive habits of pregnancy.

It is often combined with wild cherry, golden seal, or bitter-root, for making restorative bitters.

It may be used in powder in doses of twenty grains to a teaspoonful, two or three times a day, and in infusion, in doses of half to a wineglassful three times a day, as a tonic and stomachic.

Description—Root, rough, spindle-shaped and yellow. The stem is from five to ten feet high, smooth and with but few branches, except near the top, and has numerous yellowish-white flowers. Found mostly in open woods, barrens and meadows.

CORN SNAKEROOT, Rattlesnake's Master, Bear-Grass (*Agave Virginica*).

Part used—The root.

There are several species of this plant which possess similar medical properties. It is most celebrated for its speedy cure of the bite of snakes. It was once heralded as the "*Great Indian Snake-bite*" remedy. It should be bruised or chewed and applied to the wound, and a portion of the juice swallowed at the same time. A tea of the root forms an excellent gargle for sore throat. It is employed in leucorrhea in the form of an injection. A decoction of the plant has effectually cured gonorrhea. Dose of the decoction or tea, from one fourth to half a teacupful, three times a day. It is also reputed a good remedy in gravel and dropsy. Some physicians regard this plant as a positive remedy for influenza or catarrh. Dose of the fluid extract, from twenty to thirty drops; of the saturated tincture, thirty drops to one teaspoonful.

Description—It grows about two feet high, bearing on its top large balls covered with white bloom. The root is about two inches long, and bulbous.

COLLODION.

It is usually applied to abrasions of the skin, cuts, wounds, sore breasts, "big neck," burns, etc., over which it forms a film or thin scale, protecting the parts from the action of the atmosphere. It is a good application to cure corns. A fine brush should be employed for the purpose of applying it, and if the first coating is not thick enough, additional layers can be applied as soon as the previous one has become dry. When one becomes broken or worn off, renewed applications should be made.

Description—It is a solution of gun-cotton in ether and should be kept in well stoppered bottles; otherwise, it will become unfit for use.

Found only in drug stores.

COLUMBO AFRICAN (*Cocculus Palmatus*).

Part used—The root.

The infusion or tincture of this plant is excellent for weak digestion, dyspepsia and in weak and debilitated conditions of the system. It is an important ingredient in restorative bitters. It is said to be useful in chronic diarrhea and dysentery, and will usually control the vomiting in pregnancy. It is a good tonic in all cases when such is needed. Dose of the bitters or infusion, from half to a wineglassful twice a day; of the tincture, one teaspoonful; of the powder, eight to fifteen grains.

Found only in drug stores.

COTO BARK.

Dr. Von Guk, of Hamburg, says, "This is almost a specific for the cure of diarrhea in its various modifications." It is also recommended in dysentery, cholera morbus, colic, gastric catarrh, neuralgic toothache, gout and rheumatism. Prof. Gietl, of Munich, administers it in doses of 0.5 grammes of the fine powder four or six times a day. Of the tincture, he usually gives ten drops every two hours. In Bolivia, from whence the plant came, it is regarded as a remedy for the cure of rheumatism and gout. Dose of the fluid extract, from one to three drops, four to six times a day.

Found only in drug stores.

COUCH GRASS (*Triticum Repens*).

Part used—The root.

This is an efficacious remedy for irritation of the bladder, where there is excessive pain and frequency in passing urine. It is very extensively used, both in this country and in Europe, for this purpose. Dose of the fluid extract, from one to two teaspoonfuls in water, three times a day. This remedy is highly recommended by Dr. Thompson for lessening the frequency and pain in cases of excessive irritation of the bladder from any cause. For this purpose great quantities have been consumed in the hospitals of Paris.

Found in drug stores.

COTTON-PLANT (*Gossypium*).

Parts used—The bark of the root and seeds.

The inner bark of the root is used with excellent effect to restore menses when they are suppressed. For this purpose, add a quarter of a pound of the bark to one and a half quarts of water and reduce by boiling to one pint. This quantity should be taken in the course of the day. As a parturient—to facilitate child-birth—it may be given in doses of half a wineglassful every half-hour. In obstructed menstruation its use should be continued daily until the desired effect is produced. A strong decoction of the seed is reputed to be an effectual cure for fever and ague. The bark of the root tinctured in sweet spirits of nitre is very effectual, both in painful and suppressed menstruation.

This the common cotton of commerce.

COWHAGE (*Mucuna Pruriens*).

Part used—The hairs of the pods and root.

An infusion of the pods, ten to a quart of water, is usually a certain remedy for dropsy and likewise for worms. For the latter

purpose the pods are dipped into sirup or molasses and the hairs are scraped off and kept for use. The dose of this liquid is a tablespoonful for an adult and a teaspoonful for a child, night and morning for several days, then followed by a cathartic. It acts like the filings of tin, that are used also to cut up the worms, especially the tapeworm. It is convenient to give with the oil of male fern. The cowhage may be given for the threadworm. Twelve hours after the medicine is taken, a mild purge should be given to carry them off.

Obtained only in drug stores.

COWSLIP, DUNGWORT (*Pulmonoria Officinalis*).

Part used—The leaves.

It is used for bleeding of the lungs and in all lung-affections; also in dysentery and diarrhea. The infusion may be drunk freely.

Found in wet, boggy lands and cultivated in gardens.

COW-PARSNIP, Wild Angelica, Masterwort (*Heracleum Lanatum*).

A strong decoction of this plant has often cured epileptic fits and nervous fevers. It should be perseveringly used. The seeds are very useful in the treatment of dyspepsia and flatulence, or wind-colic, used in the form of an infusion. It is also reputed to be good in asthma and palsy. The dry root should always be used, as the green is said to contain certain poisonous properties.

Description—Height, from three to four feet; stalk, hollow and covered with a sort of down. It bears large bunches of white flowers; the leaves are jagged, large and hairy. The root is large, spindle-shaped, and has an unpleasant smell when fresh.

Usually found in moist soils and meadows.

CRANBERRIES (*Vaccinium Macrocarpon*).

Part used—The fruit.

Cranberries are the best cure for recent erysipelas ever known. If applied early this dangerous malady yields at once

Pound the berries and spread them in a fold of old cotton cloth and apply over the entire diseased surface and the inflammation speedily subsides. Its usefulness is universally acknowledged.

Grows wild and is cultivated in marshes.

CRAWLEY, Coral Root, Dragon's Claw (*Corallorhiza Odo*).

Part used—The root.

It is usually employed in low stages of fevers, as typhoid and inflammatory fevers, in doses of twenty to twenty-five grains, and repeated every two hours. It promotes perspiration without increasing the heat of the system or action of the heart. For cramps this plant is perhaps unsurpassed. It is a most excellent remedy in the early stages of child-bed fever. Some medical authors regard it as unsurpassed for after-pains, when combined with blue cohosh, and also for restoring suppressed lochial discharge.

Description—Resembles the beech-drops; growing from ten to twenty inches high; leafless, with coral-like stalks; of a pale yellow color, with a covering of a sort of sticky wool and scales, answering for leaves.

Found usually in rich woodlands, and about the roots of trees.

CROTON OIL (*Croton Tiglium*).

In early conditions of consumption, racking pain in the lungs, it is one of the best counter-irritants, giving relief and in many instances actually effecting a cure. It is often used to produce irritation of the skin, instead of a blister-plaster. A few drops rubbed on the affected part will be sufficient to effect such a purpose. One drop will act on the bowels very actively and usually in less than an hour. It is useful in rheumatic and neuralgic affections, and in diseases of the throat, when one part is combined with four parts of olive-oil and applied externally to the affected parts, three or four times a day. The dose, internally, is from one to three drops, on sugar, and repeated every two or three hours, until it operates. It has been employed in coma or stupor, mania, dropsy, and in obstinate obstructions of the bowels, as in cases of severe colic, when all other means have failed. It is well adapted to cases in which the patient is unable to swallow, as a drop on the tongue will be absorbed into the system, and produce the cathartic effect.

CUCUMBER (*Cucumus Sativus*).

Part used—The fruit.

A salve made of the cucumber will cure vesicular eruptions of the face and hands. It is made by taking the grated cucumber and expressing the juice; of this take one part to three parts of vaseline, heat to perfect liquefaction in a vessel set in boiling water. Then pour into a cooler and whip until cold.

The common garden vegetable.

CUBEBS (*Piper Cubeba*).

Parts used—The berries and the oil.

They are found useful in catarrh of the bladder, whites, gleet, and are highly recommended by some in advanced stages of gonorrhea. For this disease a teaspoonful of the powdered cubebs, with the same amount of balsam of copaiba, is often employed, given three times a day; but the cubebs are usually employed alone, in teaspoonful doses. When the oil is used, a dose is from from fifteen to twenty-five drops, three times a day; of the tincture, use one teaspoonful. Cubebs are also frequently employed in the treatment of colic, kidney-disease and pain in the bowels. They should never be used in cases of active inflammation.

To be had only at drug stores.

CUTTING ALMOND (*Parthenium Integrifolium*).

Part used—The root.

It is useful in diseases of the kidneys, gravel, scalding of urine and affections of the bladder. The root is to be sliced into cold water and of this drink about a pint in the course of the day.

Description—The stem rises from eighteen inches to two feet high. They are round, very hard, and of a dark red color. Flowers grow at the extremities of the branches and are a kind of a white button. The root starts out at first quite small, and finally terminates abruptly, as though it had been cut off. This plant is common to most of the States.

DAMIANA (*Turnera Aphrodisiaca*).

This is a Mexican drug, with strong aphrodisiac powers, for which is claimed great efficacy in sexual debility, or lethargy of the sexual organs, whether the result of abuse or senility. Many cases of total or partial impotence have been cured by the use of this drug, where the usual remedies have given no relief. As there are three varieties of this drug on the market, it is better to ask for Parke, Davis & Co's. preparation, which is of the variety here referred to, and a reliable remedy for the above purposes. This plant is also employed in nervous diseases in general. Dose, of the fluid extract, from fifteen drops to a teaspoonful; of the solid extract, three to six grains; of the sugar-coated pills, one or two.

W. H. Myers, M. D., of Philadelphia, writes, concerning damiana: "I have given it quite an extensive trial in my practice, and, as a result, I find that in cases of partial impotency or other sexual debility, its success is universal. I pronounce it the most effective and only remedy that in my hands produces a successful result in

all cases. The only objection to its use is its liability to produce disorders of the digestive system, but by combining it with cinchona and sherry-wine it partially obviates that tendency.

DANDELION (*Taraxacum Dens Leonis*).

Part used—The root.

It is employed in cases of dropsy, which are accompanied with indigestion, in nervous dyspepsia, and in some forms of constipation. As a cure for liver complaint it is invaluable; also very useful in chills, diseases of the kidneys, spleen and skin. Dose of the decoction, from two to three tablespoonfuls, three times a day; of the extract, five to twenty grains. The fresh root, gathered in autumn, is the best.

Description—It has bright-green leaves, flowers of a golden-yellow color, on stems about six inches high, and it abounds in a milky juice while fresh.

This plant grows in open lands in all parts of the country.

DEWBERRY (*Rubus Trivialis*).

Part used—The root.

It is similar in its properties and effects to the root of the common blackberry, and employed in all bowel complaints, as dysentery, diarrhea, cholera-infantum, etc. The infusion may be taken freely.

Description—This is a small vine, which runs on the ground, bearing a sweet, dark-red or black berry, very similar to that of the high blackberry.

DITA BARK (*Alstonia Scholaris*).

Part employed—The bark.

The fluid extract of the bark is used in India and the Philippine Islands as a valuable anti-periodic and tonic. It has been pronounced a perfect substitute for cinchona bark and quinine, and may prove useful in cases of remittent and intermittent fever which do not yield to the ordinary remedies. Warner says it has proved valuable in chronic diarrhea and in the advanced stages of dysentery. It is also prescribed during convalescence from fevers and is no doubt a valuable general tonic. Dose of the fluid extract, two to eight drops.

Found at drug stores.

DWARF-ELDER (*Aralia Hispida*).

Parts used—The bark, root and flowers.

It is employed in diseases of the urinary organs, such as gravel, suppression of the urine, kidney affections and in dropsy. An infusion of the bark of the root is the best preparation. Dose, a wineglassful three times a day. An extract of the bark mixed with vaseline makes one of the best healing salves.

Description—It is a shrub, growing from one to two feet high, along roadsides and on rocky land. The berries hang in bunches, and when ripe are round in form and have a black color and an unpleasant taste. It is a species of the common elder.

DITTANY, Mountain-Dittany, Mountain-Mint (*Cunila Mariana*).

Part used—The whole plant.

This is a popular remedy in many sections of the country for colds, fevers, headaches, hysterics, and in all cases in which it is desired to excite perspiration. The warm tea is to be drunk freely. The Indians employ it to heal wounds.

Description—Height, from twelve to eighteen inches. It has a slender, smooth stem, of a yellowish or purplish color; branches opposite, or nearly so; leaves small, smooth, deep-green on the upper and bluish-green on the under surface.

Usually found among rocks and on dry knobs.

DOGWOOD (*Cornus Florida*).

Parts used—Bark of the tree and of the roots.

It is a valuable tonic and somewhat astringent. It is an excellent remedy for fever and ague and useful in typhoid and periodical fevers. It is regarded as a good substitute for Peruvian bark, from which quinine is made and many use it in place of quinine in these diseases. Dose of the powdered bark, from half to a teaspoonful; of the extract, five to ten grains.

Description—This is a small tree and usually from fifteen to twenty feet high. The flowers have a beautiful, clear-white color, presenting a very fine appearance.

DOG-FENNEL, May Weed (*Anthemis Cotula*).

Parts used—Flowers and tops.

This is a valuable plant; very useful in colds, asthma, dropsy, fevers and rheumatism. Taken warm in small doses it produces

copious perspiration. Externally this herb combined with hops or smart-weed or with both makes a very valuable fomentation, applied hot to the abdomen in inflammation of the bowels. A cold infusion taken in doses of two wineglassfuls three times a day has often cured fever and ague. Those needing a tonic will find this to be a valuable one. When taken in large doses it is emetic.

This is a common plant in all parts of the country.

DOGTOOTH VIOLET, Yellow Snowdrop, Rattlesnake Violet, Adder Tongue (*Erythronium Americanum*).

Parts used—The leaves and root.

This plant is unsurpassed for healing scrofulous ulcers. The fresh root, or the root and leaves combined, are to be boiled in sweet milk or cream and applied in the form of a poultice; at the same time a decoction is to be taken internally.

Description—This is a small plant, having but two leaves (but one the first year), which are smooth, lance-shaped, about five inches long and covered with dark purple spots. From between the two leaves rises a stem, several inches in length, on which appears a single yellow flower.

EVENING PRIMROSE (*Œnothera Biennis*).

This is an efficient remedy as a nervine and sedative, to quiet nervous sensibility. Hence it is well adapted to painful and neuralgic affections of the lungs, stomach, heart, liver, bowels and the womb; also in whooping-cough, spasmodic asthma, and cough of a nervous or spasmodic character. Prof. Davis has employed this plant in more than twenty cases of asthma, conjoined with irritability of the stomach, and reports its use as being very successful. Dose, from half to one teaspoonful of the fluid extract every four to six hours, or more frequently as the case may seem to require.

ELECAMPANE (*Inula Helenium*).

Part used—The root.

It is a celebrated remedy for the cure of coughs and incipient consumption, and has often been used with good success in the treatment of dyspepsia, torpor of the liver, asthma and obstructed menstruation. Externally it forms a good application for tetter and the itch. Dose, from half to a teacupful three or four times a day. It gently loosens the bowels, and possesses the general properties of a strengthening and restorative medicine. It is sometimes used to expel worms.

Description—A very common plant, growing about houses and in cultivated grounds, producing large leaves and yellow blossoms.

ELDER (*Sambucus Canadensis*).

Parts used—Inner bark of the stalk, the root, flowers and berries.

The bark, infused in wine, is very efficacious in dropsy. A tea of the flowers is good in all bowel complaints of children and liver affections, and is a good blood purifier; hence useful in eruptive diseases, erysipelas, syphilis and scrofula. A salve formed by stewing the fresh bark in lard is excellent in burns, cuts, sores, etc. Since vaseline has become so extensively known and valuable in cerates it has been adopted instead of lard and is measurably preferable.

Description—Height, from eight to ten feet; the flowers small, white, and of a fragrant smell. The berries are small, hang in large bunches, juicy, slightly acid, and of a dark color when ripe. The stock contains a large spongy pith. Grows in waste places, thickets, along fences on uncultivated lands.

EGG (*Ovum*).

The egg is nutritious and slightly laxative, and will, on account of its easy digestibility, be found useful in dyspepsia, consumption and other diseases, where lax food is required. Equal parts of the white of egg and salt will always disperse a felon, if applied in time. The lining membrane of the shell is used sometimes for the same purpose. When taken raw, they are an excellent remedy for jaundice; one should be taken before each meal. White of egg is very valuable as an antidote for poisons. The yolk, boiled hard and compressed, yields a fixed oil that has been found useful as an application to sore breasts. The white of an egg has been found one of the most efficacious remedies for burns. Seven or eight successive applications of this substance soothe pain and effectually exclude the air from the burn. This simple remedy seems preferable to collodion or even cotton. Extraordinary stories are told of the healing properties of a new oil which is easily made from the yolks of hens' eggs. The eggs are first boiled hard, and the yolks are then removed, crushed and placed over a fire, where they are carefully stirred until the whole substance is just on the point of catching fire, when the oil separates and may be poured off.

EVAN-ROOT, Throat-Root, Chocolate-Root (*Geum Virginianum*).

Part used—The root.

The root of this plant is very useful in dyspepsia and in bleeding at the lungs, consumption, diarrhea, dysentery, colic, sore throat, etc. Said by Dr. Jones to restore to health the most feeble and shattered constitutions. The root is used boiled in milk, or in water, sweetened, and makes a palatable drink, or in powder. The dose is a pint of the decoction daily, or two or three teaspoonfuls of the powder mixed with honey or sirup.

Description—Height, about three feet, stem round, hairy, and surmounted by a few white flowers. The root small, brown, horizontal and crooked.

IODO-Bromide of Calcium.

This preparation is highly praised, on account of its curative effects in scrofula and all kindred diseases. It is superior as a blood-purifier. The dose is one teaspoonful, three times a day.

FALSE HELLEBORE (*Adonis Vernalis*).

Part employed—The herb.

Like *Digitalis* this drug is used in cases of dropsy and heart disease. Investigation of its properties in St. Petersburg hospitals shows that under its effects the heart's action becomes slower and more regular and forcible, the urinary secretion being increased. Dr. Bubbnow who made these experiments believes this drug positively preferable to digitalis, and not cumulative in its action. Used in fluid extract of the herb; dose, one to two drops.

Found in drug stores only.

FENNEL-SEED (*Feniculum*).

This makes an excellent infusion for colic, cramps of the stomach and griping. It is often combined with other medicines to render them more agreeable. Dose of the infusion, from one-fourth to a teacupful; of the powdered seed, from ten to twenty grains.

Found in gardens and at drug stores.

FERN ROOT, Female Fern, Rock-Brake, Polypody. (*Polypodium Vulgare.*)

Parts used—Roots and tops.

A strong decoction will expel worms, but is especially cele-

brated for its prompt action in relieving patients afflicted with the tape-worm. A sirup made of this plant is very efficacious in pulmonary diseases. Combined with liverwort it is said to have restored patients severely afflicted with diseases of the lungs.

Very common on rocky lands and mountainous sections of country.

FIELD-BALSAM, Indian Balsam, White Balsam, Balsam Weed (*Guaphalium Polycephalum*).

Part Used—The leaves.

A warm tea drunk freely is a very good remedy in quinsy and sore throat. Those that are troubled with sore mouth will generally obtain relief by chewing the leaves. It is employed in bleeding of the lungs, diarrhea and dysentery. It is valuable for healing purposes. Sores, swellings and bruises are very much benefited by the application of a fomentation of this plant. Many recommend it in lung-diseases. It may be used freely in infusion.

Description—Height from two to three feet, stalk erect and branched, leaves alternate, green on the upper side, whitish and fuzzy beneath, flowers yellow, pleasant, balsamic smell, and slightly bitter and rather agreeable taste.

Found growing generally in dry, barren places.

FEVERFEW (*Pyrethrum Parthenium.*)

Part used—The leaves.

This is an admirable remedy for the cure of St. Vitus's dance. It should be given for several days in succession; two or three teacupfuls of the infusion during each day, divided in half-teacupful doses. It is very useful in irregularity of the menses, colds and suppressed urine. The infusion is to be drunk warm, four or five times a day. It is an excellent tonic and nervine and also very useful for promoting perspiration in fevers.

Description—Height from one to two feet, leaves grayish-green color, flowers white and appearing in June and July.

Grows wild and is cultivated in gardens.

FIVE-FINGER (*Potentilla Canadensis*).

Part used—The root.

It is used in the treatment of bowel-diseases, excessive menstruation and hemorrhages from the womb. A decoction taken freely three times a day is an admirable remedy for night-sweats and forms an excellent gargle for ulcerated sore throat. Dose of

the infusion, from one fourth to one-half a teacupful, three or four times a day.

Description—It is vine-like in form, growing from one to two feet high and having five leaves in a bunch and yellow flowers; found usually in meadows and on the borders of streams.

FIRE WEED (*Erechthites Hieracifolia.*)

Part used—The leaves.

It is a prompt and efficient remedy in bloody flux, administered either in a strong decoction or the alcoholic extract. It is an important remedy as a purifier of the system in diseases of the blood, etc. It is highly recommended for cholera morbus and for summer-complaints of children. Of the infusion or tincture, take a tablespoonful three times a day.

Description—It has a large, rough stalk, three to six feet high, with light-green leaves and white flowers. The plant has a strong, unpleasant odor and bitter, disagreeable taste. Found in moist lands and open woods, especially where the ground has been burned over.

FIRWEIN.

This comparatively new medicine is prepared from several different medical plants, with a definite quantity of phosphorus, iodine and bromine added to each pint. It can usually be found in drug stores.

This is one among the best remedies in lung-diseases; and in catarrh it has proven very successful, and likewise in bronchitis, in which its use has been attended with the best results. It is highly praised in nervous headache, and also in diabetes. But it is more celebrated for the cure of consumption and bronchitis, so far as it has been tested, than perhaps in any other disease. The dose is from one to two teaspoonfuls three or four times a day.

FLAXSEED (*Linum Usitatissimum*).

Some of the worst cases of piles have been cured with the oil in less than a month, taken in doses of two tablespoonfuls twice a day, and an injection of the tea once a day. For coughs and diseases of the lungs, it is a very superior remedy. Two ounces of the seeds should be infused in a quart of water, and the half, and in severe cases the whole of it, should be drunk in the course of twenty-four hours. It may be sweetened with loaf-sugar or honey, in order to make it more palatable. Equal parts of linseed oil and

lime water is a very effectual remedy in burns. The infusion is highly useful in flux and dysentery. For this purpose add two ounces of the ground seed to a quart and a half of boiling water, and infuse for an hour, skim and drink half of this during the day. For ulcers, inflammations, etc., flaxseed makes a very effectual poultice, by boiling it with water or sweet milk. The oil of flaxseed, called linseed-oil, is a good substitute for castor-oil, as it is much milder in its action.

FOLIA CAROBÆ (*Pacaranda Procera*).

Part used—The leaves.

The results of the employment of this drug are very favorable in all forms of syphilis, but remarkably so in all old syphilitic eruptions and for patients who have taken large quantities of mercury. It is employed in the treatment of scrofula, ulcers and all diseases of the blood. Dose of the fluid extract, from ten to forty drops, three times a day.

Found only in drug stores.

FOXGLOVE, Digitalis (*Digitalis Purpurea*).

Part used—The leaves.

It is valuable in diseases of the heart and useful in dropsy of the chest, rheumatism, inflammatory fevers, spitting of blood, whooping-cough and in asthma. Dose, of the powdered leaves, one grain, or of the tincture, four to eight drops, three times a day, in chronic forms of disease. In acute diseases the frequency of the administration of the dose must depend on the circumstances of each case—such as the violence of the disease, the age, sex, temperament and strength of the patient. It is a powerful poison, and should therefore be employed with the greatest caution.

Found growing in gardens and at the drug stores.

GAMBOGE (*Gambogia*).

This is a powerful cathartic, and in large doses it has proved fatal. It often vomits in large doses and sometimes in small doses. It is employed in constipation and in dropsy, combined with jalap and cream of tartar. It should be given with care, as it is, like aloes, very liable to produce piles. It enters, like aloes, into most patent pills, to make them certain to purge, and thus thousands of cases of piles are produced annually. The dose is from two to four grains.

Found only at drug stores.

GARDEN NIGHTSHADE (*Solanum Nigrum*).

Part used—The whole plant.

As a remedy in scarlet fever, this is equal to belladonna and as effectual in preventing it. It should be given in small doses, in order to insure its medical effects. In consequence of its peculiar power over the nerve centers, it is an appropriate remedy for epilepsy, spasms and cramps of the extremities. In angina pectoris (one form of heart disease), it is said it often acts admirably, and likewise in inflammation of the eyes. In small doses it relieves headache of a nervous, congestive character. It is also a remedy for erysipelas of the face, and for inflammation of the stomach and bowels it will prove a valuable remedy. The tincture is made from the fresh plant and berries in alcohol, eight ounces to one pint; the dose, then, would vary from one to five drops, but from the fraction to one drop will be the ordinary dose.

Description—This plant grows in gardens, around yards and near walls; has a low stem, much branched and spreading, with small white flowers and black berries, when ripe of a sweetish taste. During the summer we often see ripe berries, green berries and flowers on the same plant. It resembles, in some degree, the tomato plant. It has often been mistaken for belladonna, from the fact that it bears a great resemblance to that plant; but it may be distinguished from it by the smaller stems and the purple color; the stems being smooth, not hairy, as those of the belladonna.

GARLIC (*Allium Sativum*).

Part used—The root or bulb.

The juice of garlic is a very excellent remedy in hoarseness, catarrh, whooping-cough and worms, and also a very superior remedy for nervous coughs. If garlic-juice be stewed in an equal quantity of sweet oil and strained, and a few drops of it, from a warm teaspoon, be inserted into the ear, it will be found to be one of the best remedies for deafness, as well as for earache. In pneumonia or lung-fever, it is good applied over the chest and spine; in inflammation of the brain or brain-fever of children, it has been applied to the feet and stomach with effect; in retention of the urine, applied over the region of the bladder, it has been found efficacious; and in cases of severe croup a poultice of garlic (or garlic and onions), prepared by first roasting them, will always give immediate relief, if not effect a cure. A decoction of garlic, made with sweet milk, has cured stone in the bladder. When it is stewed in sweet oil and honey, it is considered, by many, an infallible remedy for coughs. An ordinary dose of the juice is about a half-teaspoonful; of the decoction, from one to three tablespoonfuls.

Grows wild and in gardens.

GARRYA LEAVES (*Garrya Freemontii*).

Part used—The leaves.

This plant is well-known to the ranchmen and wood-choppers of California as the "California Fever Bush." The leaves have an intense, persistent, bitter taste, and have been used as a cure for chills and fever since the occupation of California by Americans. Dose of fluid extract of the leaves, ten to thirty drops. As a tonic it is valuable in scrofula, dyspepsia, and hemorrhages.

Procured at drug stores, or from Parke, Davis & Co., Detroit, Mich.

GENTIAN (*Gentiana Lutea*).

Parts used—The root and berries.

It is an excellent restorative, especially for fever and ague; also in dyspepsia, scrofula, gout, diarrhea and worms. It should not be given in large doses, or in irritable conditions of the stomach, as it is liable to cause vomiting. Dose of the infusion, one tablespoonful; of the powdered extract, from five to ten grains. There are several species of this plant, all of which possess similar medical properties. The five-flowered gentian is a very common plant, and very useful in liver complaint, jaundice and headache. It is intensely bitter, and this property, as is supposed, gives it a medicinal value.

Description—This is a perennial plant found in woods and pastures in almost all parts of the country. The root is not over an inch thick, reddish-yellow externally, grayish-yellow or reddish at the center and intensely bitter.

GERANIUM Crow-Foot, Cranes-Bill (*Geranium Maculatum.*)

Part used—The root.

The decoction of this plant is a cure for bleeding piles and should be employed twice a day as an injection. The powder is valuable to check the bleeding of wounds, nose-bleed, etc. Those who have employed this remedy for summer-complaint in children regard it as very superior. A good way to prepare it is to boil the root in sweet milk, sweetened with white sugar. It will be made still better if a little cinnamon and cloves be added. Dose, one-fourth to one-half teacupful five or six times a day; or, if not prepared in this way, the decoction may be used in like doses. It is useful in diarrhea, cholera-infantum and ulceration of the throat.

Description—It grows on the banks of creeks and hillsides. It is thick, rough, of a brown color and has a sourish taste, puck-

ering the mouth like alum. The plant grows from twelve to fifteen inches high, smooth stalk, with a bunch of two or three ragged leaves at the top. The flowers are large and of a purple color.

GINGER (*Zingiber Officinale*).

Part used—The root.

This is employed in cholera, cholera-morbus, diarrhea, dysentery, cramp-colic, flatulence, indigestion and to check vomiting. In bowel complaints it is often combined with other astringents. An infusion is made by adding half an ounce of the powder to a pint of boiling water. Dose, two to three tablespoonfuls; of the tincture or fluid extract, one-fourth to half a teaspoonful as often as may be necessary.

GINSENG (*Panax Quinquefolium*).

Parts used—Leaves and roots.

A tea of the root will usually afford relief in colic. Dose, one-half teacupful every one or two hours. For nervous dyspepsia, it is one of the best remedies in use. It should be taken in half-teacupful doses three times a day. Wonderful powers are attributed to it by the Chinese. They regard it as a panacea. It is employed with good effect in treatment of palsy, asthma and dysentery and is also valuable in promoting digestion and increasing the appetite. Dose of the decoction, from a fourth to a half-teacupful three times a day; of the powdered root, one to two teaspoonfuls.

Description—The stem is from ten to eighteen inches high, divided at the top into three branches; flowers small and white, producing a large, red berry. The roots are bulbous, have a pleasant, camphorated smell, a slightly bitter, aromatic taste.

GOLD-THREAD (*Coptis Trifolia*).

Parts used—The root.

It is an excellent remedy for sore mouth and canker of the mouth and is valuable in feeble digestion and in debilitated conditions of the system generally. It is a good thing to give children occasionally as a tonic; it invigorates the stomach and is a preventive of pin worms. Dose of the tincture, one teaspoonful three or four times a day. It has been successfully employed in dyspepsia.

Description—It is found in moist woodlands and swamps. Roots creeping, with many fibres, color bright yellow. Leaves

evergreen, on long, slender foot stalk, growing three together. Flowers white and yellow, growing on a separate stem, rising to the same height with the leaves.

GOLDEN SEAL, Yellow Puccoon, Yellow Root,

(*Hydratis Canadensis*).

Part used—The root.

For some forms of dyspepsia, the golden seal is one of the most certain remedies known. Dose of the decoction, one tablespoonful three times a day; of the tincture, one to two teaspoonfuls three times a day; of the powder, fifteen to twenty grains, or half-teaspoonful. A decoction, made of two ounces of golden seal and one ounce of geranium, in a pint of water, taken in doses of two tablespoonfuls four or five times a day, will cure chronic gonorrhea. It is extremely valuable as a wash in sore mouth and chronic sore eyes. A strong decoction of equal parts of golden seal and geranium is a valuable injection for chronic leucorrhea. As a restorative, it is employed in cases of recovery from bilious and typhoid fevers; its usefulness is becoming more known every day. It is a specific for piles, used as an injection.

Hydrastin is a concentrated preparation made from the golden seal, used for the same purposes as the root, and generally found in drug stores.

Description—It is rough, wrinkled and knobby, half as thick as the little finger, of a yellow color inside and of a bitter taste. The stem is round, growing from fourteen to fifteen inches high, commonly bearing two rough leaves at the top, in the center of one of which appears the flower followed by a fleshy and many-seeded berry.

GRAVEL-WEED, False Cromwell, Wild Job's Tears

(*Onosmoidium Hispidum*).

Part used—Roots and seeds.

This plant is most celebrated as a remedy for gravel. It was first introduced by Dr. A. Robinson of Indiana, as a solvent of the stone. Its medical properties had been discovered by Indians of Tennessee, by roasting and eating the roots for food. Both the roots and seeds are employed for curing gravel. They are used as follows:

Take half a pound of the bruised roots and two tablespoonfuls of the pulverized seeds, steep the roots in three pints of boiling water until the strength is extracted, then pour the decoction on the seeds, and drink a teacupful once in two hours for twelve hours, or

until it operates on the bowels as a cathartic, when the sediment or seeds must be taken. This finishes the process, which, it would seem, is relied upon to effect a cure.

Description—Height of stems, from two to three feet, several growing from the same root; leaves larger on the stems and smaller on the branches; flowers yellowish-white, producing whitish seeds, about the size of hempseed; roots large, dark on the outside and yellowish within.

Grows usually on hill-sides and in open situations, and especially on rich limestone soil.

GRAPE VINE (*Vitis Vinifera*).

The juice or sap of the vine is a very excellent remedy for curing sore and weak eyes, and also valuable for stone in the bladder. It is a celebrated remedy for the dropsy. For this purpose, the ashes of the bark and small limbs or twigs are to be employed; of these, give a heaping teaspoonful three times a day, in two or three tablespoonfuls of catawba wine. It is an excellent gargle for sore throat. The wild and cultivated grape-vines possess similar medicinal properties. In cutting or making an incision in the vine, in the spring or summer, the juice or sap exudes. This is to be used in the form of an eye-water for sore eyes.

GREEK VALERIAN, Abcess Root, Sweat Root, Blue Bells (*Polemomeum Reptans*).

Parts used—The root and tops.

This plant is very excellent for pleurisy and fevers also; to cleanse the blood in case of boils and for producing perspiration. It is a very popular medicine in some localities for lung difficulties. It is not only highly valuable for consumption, but is also very useful in other chronic complaints, particularly scrofula, scrofulous and other ulcers, and for the bites of snakes. Consumption has been cured by it after other approved means had been perseveringly tried but failed. For use, take a small handful of the roots to three pints of boiling water, steeped down one-half. Dose, half a teacupful every four hours. In chronic complaints, after using a short time, it often produces a singular sensation on the surface of the body—a kind of prickling.

For snake-bites, take the roots and tops, bruise them in a mortar and mix with new milk to the consistence of a poultice, and apply to the bitten part. The tea is also to be taken internally at the same time.

Description—Height of stalk one to two feet; flowers small, blue, and appear early in the spring; the roots small, numerous, fibrous, and of a dirty-white color.

GREAT LAUREL (*Rhododendron Maximum*).

This is a valuable remedy in coughs, consumption and influenza. Add twenty drops of the fluid extract to a tumblerful of water; of this give a teaspoonful every one or two hours.

GUACO LEAVES (*Mikania Guaco*).

This is a good remedy in chronic rheumatism, cholera, diarrhea, dysentery and cholera-infantum. Dose of the fluid extract, from one-half to a teaspoonful every two or three hours.

GROUND IVY (*Glechoma Hederacea*).

Part used—The leaves.

The fresh juice, snuffed up the nostrils, is a valuable cure for headache. An infusion of the leaves will afford effectual relief in painters' colic. It should be taken in half-teacupful doses or more, three times a day. It is also regarded as a preventive of this disease. It is very good in jaundice, asthma, diseases of the lungs and for cleansing the blood. Dose of the infusion, half a teacupful three times a day.

Description—It is a low, creeping herb, growing generally along fences, orchards and shady places, and sometimes in gardens. The flowers are of a bluish-purple color.

GROUND CENTAURY (*Polygala Nuttalli*).

Part used—The herb.

This plant has the reputation of being almost infallible as a remedy in fever and ague. It is useful as a tonic and alterative, and very effectual in boils and erysipelas. It is prepared for use by adding one drachm of the plant to a gill each of alcohol and water. Of this, give a tablespoonful three times a day.

Description—The stem is eight to ten feet high; flowers, rose-purple; seeds, black. It is frequently found growing in bunches of fifteen to twenty stems, from one root. It grows in very poor soils.

GUM MYRRH.

This is a powerful medicine for checking all tendency to mortification, and for relieving sponginess of the gums, gangrenous conditions and ulcers. Also in wounds and injuries, when there is

a tendency to mortification, it is used as a wash or mixed in a poultice, and at the same time a small portion is to be taken internally. It is also valuable in putrid fevers and green sickness. Dose of the tincture, one to two teaspoonfuls, three times a day; of the powder, ten to twenty grains; a few drops in water makes an excellent mouth-wash for sore teeth and gums.

Description—Gum myrrh is the concrete juice of a tree growing in the East Indies. It is hard, brittle, and of a reddish-yellow color.

GUARANA (*Paullinia Sorbilis*).

This is an excellent remedy for sick headache and also for chronic rheumatism, and may be employed advantageously in bowel complaints and neuralgia. Dose of the fluid extract, from ten drops to a teaspoonful. In headache, the dose may be repeated every half-hour or hour, until the pain ceases, though one dose is often sufficient. Prof. Bundy, of the California Medical College, says, "When you have the headache, don't forget to take guarana." It is a favorite remedy with him, and he regards it as almost sure to relieve most forms of headache. Dose of the solid extract, from one to five grains; of the sugar-coated pills, from one to two, three times a day. This is a comparatively new remedy and to be had now at almost all drug stores. The firm of Parke, Davis & Co., of Detroit, manufactures the fluid extract and other preparations of this plant.

GUM GUAIAC (*Guaiaci Resina*).

It is useful in scrofula, diseases of the skin and venereal diseases, and in small doses it is good in the first stages of dysentery and in obstructed menstruation. It is also a celebrated rheumatic remedy, for which purpose it is often used in the form of bitters, made by adding one ounce of the gum to one quart of the best rye whisky. Of this, take one to two tablespoonfuls three times a day. Dose of the tincture, from one to three teaspoonfuls, two or three times a day; of the powered resin, five to fifteen grains. This is also a valuable remedy for the effects of poison oak. In taking this medicine for any purpose, if irregularity of the bowels or sickness occur, its use must be discontinued. The ammoniated tincture of gum guaiac will almost invariably relieve painful menstruation which originates from taking cold. Dose, from thirty to sixty drops, every three hours, in simple sirup.

GUM ARABIC (*Acacia Arabica*).

This is the concrete juice of the Arabian acacia. It is very useful in catarrh of the bladder, coughs, hoarseness, sore throat, and in all irritations and inflammations of the mucous surfaces, bowels and urinary passages. It is especially serviceable in irritating and inflammatory diarrhea, dysentery, gonorrhea and strangury. Hemorrhage from small wounds, razor-cuts, etc., may be readily checked by applying equal parts of powdered gum arabic and alum. Dissolve from four drachms to an ounce in a pint of water; it may be taken freely—a tablespoonful or more every hour. It can be rendered more palatable by adding a small quantity of loaf-sugar.

HAIR-CAP MOSS, Robin's Rye, Ground-Moss, Bears' Moss (*Polytrichum Juniperium*).

Part used—The plant.

It is very useful in gravel, dropsy, fevers and inflammations. The infusion or decoction may be used freely.

Prof. King, of Cincinnati, says: "A strong infusion of this plant, taken in doses of four tablespoonfuls every half-hour, has removed from dropsical patients from twenty to forty pounds of water in the space of twenty-four hours."

Description—Stem slender, of a reddish color, and from four to seven inches high; leaves lance-shaped and somewhat spreading. The fruit is a four-sided oblong capsule. It grows in high, dry places, along the margins of dry woods, mostly in poor, sandy soil.

HARDHACK (*Spiræa Tomentosa*).

Part used—The herb.

The green herb, boiled in milk, makes a very efficacious remedy for chronic diarrhea. An infusion, or tea of this plant, is reputed prompt in arresting cholera-infantum. It is deservedly a popular remedy in summer-complaint of children. The infusion may be drunk freely. Dose of the fluid extract, from three to fifteen drops.

Description—This is a beautiful, green shrub, with leaves of a dark-green color above and white underneath.

HEMLOCK, SPRUCE (*Pinus Canadensis*).

Parts used—The bark and the gum.

This tree produces a gum, called Canada-pitch or hemlock-gum, which makes a good strengthening plaster for weak back. It is a safe and valuable counter-irritant and relieves chronic aches of

any kind. The fluid extract makes a very valuable injection for chronic gonorrhea. The essence of hemlock, in doses of five to eight drops, has proved effectual in checking vomiting of cholera-morbus. A strong decoction of the bark is good in the whites, falling of the womb, and as an external application in gangrene. The oil of hemlock is often used externally in the treatment of croup, and to relieve rheumatic pains. A strong decoction, used as a wash, will cure itching piles. Use the fluid extract when it can be got. Prof. Bundy says, "This medicine has no equal for hemorrhages, whites, cuts, diarrhea and dysentery." Dose of the infusion, one tablespoonful, two or three times a day; of the fluid extract, fifteen to twenty drops. In uterine and venereal diseases, it is used by injection. The fresh twigs in infusion cure coughs and colds and should also be used in baths. Taken for these complaints it produces profuse sweating.

The tree is a species of pine and grows in the northern part of the United States and Canada. The bark and gum can always be found at drug stores.

HIGH CRANBERRY (*Viburnum Opulus*).

Part used—The bark.

This is a very prompt and effectual remedy in relieving cramps, asthma and spasms of all kinds. It is said that, if it is used during the last two or three months of pregnancy, it will entirely prevent the convulsions which sometimes occur at that period and in parturition. Dose, one tablespoonful, once a day. It is employed in the treatment of hysterics. Dose of the extract, from one to five grains, three times a day. A decoction or infusion of the bark, in wine, may be used in doses of a tablespoonful, two or three times a day.

This is a shrub, growing in rich soils in the Northern States and Canada.

HOARHOUND (*Marrubium*).

Part used—The leaves.

Hoarhound is much used in colds, coughs and is also valuable in asthma and jaundice. A cold infusion is a very useful tonic in dyspepsia. It is sometimes employed for the removal of worms and for the cure of mercurial salivation. The infusion may be used freely.

It is found growing in all parts of the country.

HOLLYHOCK (*Althea Rosea*).

Parts used—The leaves and roots.

This is a very fine remedy in all cases of inflammation, such

as inflammation of the stomach, lungs, bowels, bladder, etc. It is employed with good effect in colds, coughs, leucorrhea and gonorrhea. It is harmless, and the tea may be drunk freely five or six times a day.

It is of common growth found in gardens.

HOPS (*Humulus Lupulus*).

Hops are extremely useful to relieve the pain and inflammation of internal organs in the form of fomentations or poultices. Such pain may result from pleurisy, inflammation of the stomach and bowels, tumors, etc. For wakefulness, a pillow of hops may be used; it will generally induce sleep. The yellow powder, called lupulin, obtained by threshing the hops, is preferable for internal use. It is employed to prevent chordee, and in delirium tremens, to allay nervous irritation and to mitigate the pain attending gonorrhea. It is also employed to suppress venereal desires. Dose of the powder, five to ten grains; of the tincture, from one to three teaspoonfuls. In making a fomentation, they can be boiled either alone in water and vinegar, or with other bitter herbs.

HORSE-RADISH (*Cochlearia Armoracia*).

Part used—The root.

A sirup made of grated horse-radish and honey or sugar and water, will cure ordinary cases of hoarseness. Dose, a teaspoonful every one or two hours. Prof. King says, "A warm infusion of the fresh root in cider, drunk in sufficient quantities to produce perspiration and repeated every night, has cured dropsy in two or three weeks." It has proved beneficial in rheumatism, neuralgia, paralysis, and in weak digestive organs. Hoarseness from colds may be removed by chewing a small piece of horse-radish the size of the little finger.

HORSE-CHESTNUT (*Æsculus Hippocastanum*).

It has proven a good remedy for the piles when they are hard, sore and attended with itching and burning. When they are attended with a sensation of fullness and a desire to strain and there is looseness of the bowels, this remedy will usually prove effectual. It seems to act directly on the veins of the rectum. Dose, from three to five drops of the tincture, three times a day.

Description—The horse-chestnut is a lofty forest-tree, covered with rough, brown bark; the leaves large and composed of seven leaflets, from a common center. It bears a prickly fruit.

HORSEMINT (*Monarda Punctata*).

Parts used—The leaves and flowers.

A strong infusion is very useful in disease of the kidneys, suppressed urine and to allay vomiting, and may be drunk freely. The volatile oil is employed in neuralgia, rheumatism, paralysis and cholera-infantum. The essence is a very efficient preparation to remove nausea and vomiting.

It grows in all parts of the country, in dry soils; height from two to three feet.

HOUND'S TONGUE (*Cynoglossum*).

Part used—The leaves.

The fresh leaves bruised, or the tincture, will remove the discoloration and swelling of parts caused by bruises or blows. In case of excoriation of the feet from long marches, a poultice of the leaves will give speedy relief. It is likewise valuable in scrofulous tumors, giving complete relief. A tea is good in catarrh, coughs, dysentery and spitting of blood.

The leaves have a very unpleasant odor, and a bitter taste. It grows wild in almost all sections of the country, and may be had at drug stores.

HYDRANGEA, Seven Barks (*Hydrangea Arborescens*).

Parts used—The root.

It is an admirable remedy for gravel, and relieves that excruciating pain experienced when the gravelly formations pass through the ureters from the kidneys to the bladder. Its curative qualities for inflammation of the kidney as well as other affections of the urinary organs are now generally recognized. A sirup or decoction of the root may be taken in teaspoonful doses several times a day, but not to cause dizziness or other unpleasant symptoms. Dose of the decoction, one teaspoonful several time a day.

This shrub is common to almost all parts of the United States.

HYOSCIAMUS, Black Henbane, (*Hyosciamus Niger*).

Part used—The leaves.

It is used in rheumatism, neuralgia, gout, asthma, nervous and spasmodic affections and chronic coughs, to allay nervous excitability, to relieve pain and to promote sleep. It is frequently used in place of opium, as it does not produce constipation. It should be used with caution, for in large doses it is a narcotic poison. Dose of the tincture, from ten to fifteen drops; of the powdered leaves,

five to ten grains; of the alcoholic extract, from one-sixth of a grain to two grains. The extract is the form in which it is generally used.

Grows wild in most parts of the country and may be had at drug stores.

HYSSOP (*Hyssopus Officinalis*).

Parts used—Leaves and stems.

It is useful in sore throat and quinsy, in the form of a warm gargle. Its value is very much improved when combined with alum and sage. It is good taken internally for colds and affections of the chest. The fresh leaves are valuable when bruised and applied to wounds, to relieve the pain and also for removing black spots caused by bruises.

Grows in gardens.

ICELAND-MOSS (*Lichen Islandicus*).

This plant has been used with good success in dyspepsia and as a nutriment and tonic in low stages of consumption. As a demulcent, it is used in coughs, bronchitis and affections of the lungs. In these difficulties its value may be increased by adding an equal proportion of liverwort. It is prepared by adding a handful of the moss to a pint of boiling water; after standing two or three hours, strain, sweeten with honey and drink freely. It is only used when cooked, and forms what is termed *blanc mange*. It is good for food.

Found in drug and grocery stores.

ICE-PLANT, Pipe-Plant (*Monotropa Uniflora*).

Part used—The whole plant

The root of this plant is regarded as almost an infallible remedy for fits in children, and has been used with great success in St. Vitus's dance. The juice, diluted in cold water, is useful in sore eyes. It is very valuable in nervous restlessness, pains and irritability. It is used instead of opium, and without any of the objectionable influences of that drug. The juice of the plant is an excellent remedy in gonorrhea and ulceration of the bladder, used as an injection. Dose of the powdered root, half a teaspoonful, two or three times a day.

Description—Height, from four to eight inches. The whole plant, including the stem and flowers, is of a clear white color. It is very juicy, and when rubbed a little, it will melt almost like ice. The flowers have some resemblance to a pipe; hence its name, pipe plant.

INDIAN FEVER-ROOT (*Helianthus Occidentalis*).

Part used—The root.

It is a celebrated remedy among the Indians for the cure of fevers, and employed by them as a great sweating agent. The decoction should be drunk freely.

Description—Height of stem from two to three feet, sending up several stems from the same root; flower-heads yellow, one to two inches in diameter; root dark and of a strong, rich taste.

INDIAN ARROW, Wahoo, Bitter Ash, Spindle-Tree, Burning Bush (*Euonymus Atropurpureus*).

Part used—The root.

It is used in diseases of the stomach, bowels and liver, for indigestion, colic, dyspepsia and bilious fever. The decoction has been used with success in liver complaint, dropsy, constipation and lung difficulties. Dose of the tincture, from two to three tablespoonfuls of the powder (ten to twenty grains). When this is combined with equal parts of wafer ash (*ptelia trifoliata*) it can be relied on to cure old, long-standing cases of chills, which have resisted quinine. It may not be quite as speedy in controlling this disease as is this latter medicine in some cases, but the disease is less liable to return when broken with wahoo than with quinine.

Description—This is a shrub, growing from ten to fifteen feet high, bark smooth, dark-gray and spotted; leaves, deep-green on upper and light on under side. Flowers very small, dark, reddish-brown with red fruit or berries in the fall.

It grows principally on bottom lands and on the borders of streams.

INDIAN HEMP, Dogs' Bane, Black Silkweed (*Apocynum Cannabinum*).

Part used—The root.

The decoction of this plant is an admirable remedy for dropsy and numerous cases have been cured with it. It should be taken in tablespoonful doses, three times a day; of the extract, four to five grains. It is an infallible remedy for the cure of thread or pinworms. For this purpose, take twenty drops of the tincture three times a day for three successive days; then use an injection of cold water and the worms will be dislodged.

Description—Height about two feet. It is one of the several species called *Indian hemp*, and resembles very much the *bitter-root* (*Apocynum Androsæmifolium*). They both grow in the same kinds of soil, often together, and both have a tough bark like hemp, and pods somewhat alike, but may be distinguished by their leaves

and flowers. The leaves of this species are oblong and sharp, or pointed at both ends, while those of the bitter-root are pointed only at the outer end, and quite round at the end next the stalk. In this species the flowers are greenish-yellow, slightly pink or purple inside, while those of the bitter-root are white, tinged with red. It grows in meadows and low, moist lands.

INDIAN CUP, Ragged-Cup, Wild Sun-Flower (*Silphium Perfoliatum*).

Part used—The root.

This will remove ague-cake. The Indians use it for curing fevers and attribute to it a very remarkable virtue; namely, that of "making an old man young." It is employed effectively in bruises and ulcers, used very freely in the form of a tea. It requires long steeping in order to extract its virtue. It is esteemed a good remedy for liver-complaint, used in the form of a decoction, taken in wine-glassful doses, three times a day.

The fluid extract of the Indian cup alternated with bromide of ammonium has effectually cured cases of asthma of long standing. Dose of either the fluid extract or essential tincture thirty to sixty drops. The latter may be made from the fresh bark of the root; four ounces to one-half pint of alcohol (76°). It should always be made fresh, for it soon loses its virtue.

Description—It has a large, square stalk, from four to six feet high; leaves from nine to twelve inches long and four to five wide, growing in such a shape as to form a cup; flowers yellow, resembling a sunflower.

INDIAN TURNIP, Dragon-Root, Wake Robin (*Arum Triphyllum*).

Part used—The root.

The fresh root has been used in colic, asthma, whooping-cough, chronic catarrh, chronic rheumatism, bronchitis and in low stages of typhus fever. Externally, it has been used in scrofulous tumors, scald-head, and other diseases of the skin. Dose of the grated root in honey, sirup or mucilage, eight to ten grains, three times a day. For coughs and colds, tincture the root in vinegar, and give from one to two teaspoonfuls three times a day. It will often afford relief. For scrofulous swellings the pulverized root is to be mixed with honey or sirup and applied in the form of a poultice.

Description—The root of this plant is round, flattened, with many white fibres; externally it is dark and wrinkled; internally, white. Leaves, three in number, growing at the top of the stalk,

and a single blossom of the same color as the leaves, producing a roundish cluster of red berries. Grows everywhere; found in drug stores.

IPECAC, Ipecacuanha (*Cephælis Ipecacuanha*).

Parts used—The roots and leaves.

This is one of the mildest and most certain vegetable emetics. In small doses the tincture is a soothing tonic, and is often required in nausea and vomiting of many diseases. It is found very useful in dysentery, in one-half to one-grain doses. As an emetic, the dose is fifteen to thirty grains. It is useful in fevers, hemorrhages, inflammatory diseases and dyspepsia. The wine or tincture of ipecac is a good remedy in coughs and an important ingredient in many of the cough mixtures. Dose, one-fourth to one-half a grain once in four hours.

Found only in drug stores.

IRON WEED (*Vernonia Fasciculata*).

Parts used—The root and leaves.

This plant is particularly useful in female complaints. It is considered a certain remedy for chills and intermittent and bilious fevers, and is also valuable in scrofula, diseases of the skin and in constitutional syphilis. Dose of the decoction, half a wineglassful or more; of the tincture, two or three teaspoonfuls, several times a day. A decoction of the leaves is esteemed a good gargle in sore throat. It is employed by some physicians in the treatment of dyspepsia.

Description—Height, from four to eight feet, stalk straight and of a purple color, leaves coarse and flowers of a bright purple color. Grows in rich timber and prairie lands and especially along water-courses.

IRON WOOD (*Astrya Virginica*).

Part used—Heart of the tree.

It has been used very effectively in neuralgia, dyspepsia and scrofula, and is by some regarded as an infallible remedy in chills and fever. The wood is cut into small pieces or chips and a tea made of them, a dose of which is four to six tablespoonfuls three times a day.

Description—This is a small tree, growing from ten to forty feet high, the wood of which is very hard. The bark of the tree is fine and of a dark-gray color.

JALAP (*Ipomea Jalapa*).

Part used—The root.

It is a powerful and certain cathartic, especially employed when copious evacuations are required. It is somewhat drastic, producing large, watery discharges, with more or less griping, with nausea and vomiting. It is often used in dropsy with cream of tartar added. Dose of the tincture, from one to two teaspoonfuls; of the powder, ten to twenty grains.

Found only in drug stores.

JABORANDI (*Pilocarpus Pennatifolius*).

This is a sovereign remedy for breaking fevers when administered in the first stage. It will cure a cold when employed at the beginning of the difficulty. It has been employed with good success in pneumonia, acute rheumatism and chronic Bright's disease. Whenever a diaphoretic or sweating medicine is needed it is perhaps unequaled. It is, therefore, very excellent in the treatment of dropsy, bronchitis and diabetes-mellitus. Dose of the fluid extract, from fifteen drops to one teaspoonful, every half-hour, until thorough sweating is produced, then in one-fourth to one-half the quantity and at longer intervals. In cases where profuse perspiration is required it may be given in teaspoonful doses. When the solid extract is employed the dose is from three to fifteen grains.

Found only in drug stores.

JAMAICA DOGWOOD (*Piscidia Erythrina*).

Part used—Bark of the root.

This is a new remedy and is proving a superior substitute for opium. Commencing dose, thirty drops of the fluid extract.

Its action seems to be on the nerve-centers; it causes sleep without producing the cerebral hyperæmia which succeeds opium and the active principles extracted therefrom. The sleep is tranquil and refreshing; it soothes bronchial cough and moderates the paroxysm in asthma and nervous coughs. It has also been pronounced an excellent remedy for chronic hepatitis and obstructions of the liver.

Dr. William Hamilton, of Plymouth, England, in a communication to the *Pharmaceutical Journal*, speaks of this plant as a powerful narcotic, capable of producing sleep and relieving pain in an extraordinary manner. As an anodyne in toothache a saturated tincture is found exceedingly efficacious, not only affording relief when taken internally, but uniformly curing the pain when introduced into the decayed tooth.

When employed for taking fish, it is thrown, coarsely powdered, into the deep still part of some stream, when the water soon acquires a reddish shade and in a few minutes the fish begin to rise to the surface, where they float. In most states in the Union the law prohibits its use for this purpose.

Found only in drug stores.

JUDAS-TREE (*Cercis Canadensis*).

This is useful in the treatment of diarrhea and dysentery when it has become chronic, as it can be administered where there is an irritable condition of the stomach without increasing the trouble. It also makes an excellent injection for leucorrhea and gleet, where there is a debilitated condition of the mucous membranes. Dose of the fluid extract, from fifteen to twenty-five drops, two or three times a day.

Found only at drug stores.

JUNIPER BERRIES (*Juniperus Communis*).

Juniper berries are valuable in dropsy, as they act directly on the kidneys and bladder. They are also, sometimes, employed in skin diseases and in scurvy, and frequently given in combination with other medicines for various other complaints. An oil is obtained from the berries which has been used in catarrh of the bladder, in doses of from two to five drops, in spirits or mucilage

A native plant, which grows wild.

KAMEELA (*Rottlera Tinctoria*).

This is a great tape-worm remedy. Dose, from two to four teaspoonfuls of the fluid extract, the patient having previously fasted twenty-four hours. This should then be followed by two tablespoonfuls of castor-oil.

KAVA-KAVA (*Piper Methysticum*).

The fluid extract of this plant is used with success in gonorrhea, gleet and leucorrhea and all excessive mucous discharges. It is also employed in inflammation of the bladder and rheumatism. Dose, from thirty to sixty drops, three times a day, in a glassful of water

Found only in drug stores.

KINO (*Pterocarpus Marsupium*).

It is useful in dysentery and diarrhea, and in many cases in which a pure astringent is needed. A decoction is sometimes employed as a gargle in sore throat. It is most frequently used in the form of a tincture, the dose of which is from one-half to a teaspoonful; of the powder, three to five grains.

Found only in drug stores.

KOOSO (*Brayera Anthelmintica*).

Careful experiments have proved the extraordinary efficacy of this drug in the destruction and expulsion of the tape-worm. Dose of the fluid extract, from two to six teaspoonfuls; the patient having previously fasted twenty-four hours. The medicine should be followed with a dose of castor oil.

Procured at drug stores.

LADY'S SLIPPER, NERVINE, American Valerian (*Cypripedium Pubescens*).

Part used—The root.

This plant should be used in the form of the fluid extract in doses of fifteen to twenty-five drops, or the tincture made by adding eight ounces to one pint of alcohol (86°). The dose is one-half to one teaspoonful.

This medicine is an excellent nervine, and acts as a tonic to the exhausted nervous system. Hence it is adapted to cases of nervous irritability and sleeplessness, and gives rest and refreshing sleep, and for this purpose is one of the best among domestic remedies. In the restlessness and wakefulness occurring in the latter stages of typhoid fever, it is one of our best remedies. It may be used alone or combined with scull cap, in the various nervous affections, such as hysterics, headache, St. Vitus's dance, or in other diseases. Whenever a mild and safe nervine is needed, lady's slipper root is very generally used in the form of infusion, made by steeping about one ounce of the root in a pint of boiling water. Dose, from a half to a teacupful every hour or two, or oftener, according to symptoms.

Description—It rises to the height of one or two feet; leaves three to four inches long and two to three wide, and attached by a sort of sheath around the stalk. Flowers large, showy, and moccasin-shaped, either pale yellow or white, with red or purple spots.

LEEK, House-Leek (*Sempervivum Tectorum*).

Parts used—The root and leaves.

The leaves, bruised and applied twice a day, are reputed to effectually remove warts and ringworms, and also to cure shingles. The fresh leaves, when bruised, are very useful and cooling when applied to the parts stung by insects; likewise for erysipelas, ulcers, and inflammation.

This is a perennial plant, and generally well known.

LOBELIA, Indian Tobacco (*Lobelia Inflata*).

Parts used—Leaves and stems.

For an antidote to poisons of all kinds, whether animal or vegetable, lobelia is a good remedy. It is regarded by some practitioners as efficacious in hydrophobia, in which cases have been reported as cured with it. Bites and stings of insects, spasms of the limbs and severe pains may be readily relieved by an application of a poultice of lobelia and weak lye. An external application of the tincture is very effectual for relieving sprains, bruises and for the poison from poison ivy or poison dog-wood, and likewise often effectual in rheumatic pains. The ethereal tincture of lobelia, which can be purchased at any drug store, will relieve almost instantly the violent paroxysms of asthma. Some physicians regard it as a good remedy for the bite of snakes. For an emetic, two teaspoonfuls of the powder are to be added to half a pint of hot water (but not boiling). After standing a few minutes it is ready for use. It may be given in half-teacupful doses every eight or ten minutes, along with pennyroyal balm, composition or some other warm herb-tea; and it is often well to drink freely of the tea of some one of these herbs before commencing the use of lobelia. When the tincture is used for an emetic, the dose is from one to two tablespoonfuls, repeated as before directed. It can be sweetened and made quite palatable. The lobelia should be continued until the patient has vomited two or three times. In sudden attacks of croup it is an admirable remedy. Dose for a child is one teaspoonful, given with some of the tea and repeated as before directed until thorough vomiting is obtained. It can be given in molasses or honey. The throat and chest should be bathed with it at the same time. Ten or fifteen drops will produce sickness in some persons. In asthma, give of the tincture a teaspoonful and repeat every half-hour during the paroxysms. It may produce sickness and vomiting or it may not; if it does, it is perhaps all the better for it.

In reference to its power of controlling asthma, Dr. Cutler, a distinguished physician, makes the following remarks:

"It has been my misfortune to be an asthmatic for about ten years I have tried a great variety of remedies, with but little

benefit. Last summer I had the severest attack I ever experienced, for eight weeks. The tincture of lobelia gave me immediate relief, and I have been entirely free from the complaint since that time. My breathing at one time became so difficult I thought I should suffocate."

Description—It grows one or two feet high; the stem is hairy; the leaves are tapering, hairy above and below, bordered with small, irregular teeth; the flowers are palish blue, thinly scattered along the branches and upper part of the stem. The blossoms are followed by small pods which contain a large quantity of very small black seeds; when you break the plant a milky juice exudes. This plant grows throughout all parts of our country.

The Oil of Lobelia is valuable in catarrh. In the commencement of this disease a few drops, added to a teacupful of ginger-tea and taken until perspiration results, will generally relieve the attack in a few hours.

LIVERWORT, Tree-Foil, Silver-Leaf (*Hepatica Triloba*).

Part used—The whole plant.

This plant is recommended in lung-affections, coughs, bleeding of the lungs, liver-complaint, and in the early stages of consumption. It is an innocent herb, and may be taken freely in infusion or sirup.

Description—The plant is small, rising only six to ten inches high, having a sort of three-lobed leaf on each stem, and purplish-white blossoms; found in timber lands, usually growing on the south side of hills.

LIME (*Calx*).

For dysentery and chronic diarrhea, lime-water is a very efficient remedy, and has performed cures when all else had failed. It is prepared by putting an ounce of unslaked lime in a quart of water. After standing two or three hours, pour off the clear liquor, as it may be wanted for use. Dose, from two to four tablespoonfuls, three times a day. If the lime-water is added to a wineglassful of sweet milk, it is far more pleasant to the taste. Lime is a very convenient article to produce perspiration, when the patient is unable to be moved, or where it is desirable he should not be disturbed. Use in the following manner: Take half a dozen pieces of lime, each about the size of an egg, and wrap a moistened cloth around them; place them, thus prepared, on each side of the patient and by both thighs, when free perspiration will be rapidly produced. Lime-water is a valuable application for burns, and its virtue is increased when mixed with linseed-oil.

MAGNOLIA TREE (*Magnolia Grandiflora*).

Part used—The bark of the root.

It is useful in chills and fever. It is a good restorative tonic, used in dyspepsia and for convalescence from fevers.

MANGO FRUIT (*Garcinia Mangostana*).

The fluid extract of the rind of the mango fruit, in doses of fifteen drops to a teaspoonful, is employed as an astringent in the treatment of nasal catarrh, diarrhea, dysentery, leucorrhea; as a gargle in tonsilitis, and properly diluted as a lotion for foul ulcers and for prolapse of the rectum or vagina.

Procured at drug stores.

MAURANITA (*Arctostaphylos Glauca*).

Part employed—The leaves.

This plant is a native of California, and the fluid extract is used as an astringent and tonic, but chiefly in treating gonorrhea and gleet, vesical catarrh, incontinence of urine and in leucorrhea. Dose, twenty drops to a teaspoonful.

Found in drug stores.

MARSHMALLOW (*Althæa*).

Parts used—The root and leaves.

It is employed with good results in the treatment of acute gonorrhea, and all affections of the mucous membrane of the lungs and bowels, inflammation of the kidneys and bladder, retention of urine and strangury. The infusion should be drunk freely. Its effects are improved when equal parts of spearmint are added. It is useful for the prevention of gangrene, when used in the form of a poultice made of the powdered root and leaves, and is also excellent for bruises and inflammatory swellings.

Description—It is cultivated in gardens and grows wild generally about wet, marshy land, from three to six feet high; light, pink-colored flowers, followed by little capsules or buttons, each containing a single seed.

MARIGOLD (*Calendula Officinalis*).

Parts used—The leaves and flowers.

The tincture of this plant is good, applied to old ulcers and sores, to cause them to heal. It is useful applied to fresh bruises and contused wounds. It is generally diluted with water: to a

tumbler of water add a tablespoonful of the tincture and apply by means of muslin saturated with it.

Description—It bears beautiful yellow flowers and is cultivated in gardens as an ornamental plant.

MARSH ROSEMARY, Sea-lavender (*Statice Caroliniana*).

Part used—The root.

The decoction of this herb is used as an injection, three times a day, for falling of the womb, gonorrhea, gleet and leucorrhea. A gargle of the same is good for sore throat and as a wash for old ulcers. The decoction, taken in one or two tablespoonful doses every two hours generally checks bowel-disease in children. Combine the infusion of this herb with equal parts of the infusion of black cohosh and golden seal, and you have one of the best injections for falling of the womb.

Description—This plant grows in salt-marshes along the sea-coast. It has a large and somewhat fleshy root; stalk one to two feet high and flowers of a bluish-purple color.

MAY APPLE, Mandrake (*Podophyllum Peltatum*).

Part used—The root.

This plant is most commonly known as mandrake, and is, perhaps, more highly esteemed as a purgative medicine and a remedy for acting on the liver, than for other purposes. In chronic affections of the liver it has few superiors for arousing this organ to a healthy action, and finally effecting a cure in torpid conditions of this organ. For a cathartic, give of the powdered root fifteen to twenty grains; of the tincture, twenty to fifty drops. When it is not designed to act as a cathartic but to produce an alterative effect, give five to ten drops of the tincture, or one to three grains of the powder twice a day. Dr. Lobstein says, he never knew its employment to fail of procuring immediate relief in cases of incontinence of urine. Used in the form of a powder and sprinkled on the affected parts, it will destroy proud flesh without injury to the sound parts, and applied likewise to all ill-conditioned ulcers it disposes them to heal very rapidly. With some persons it is an effective remedy for constipation, and many women regard it as one of the foremost remedies in suppressed and painful menstruation.

Podophyllin is the concentrated principle of the May-apple, and is very extensively used in place of the crude article, but generally in combination with other medicines. The most effective manner of administering is in the form of pills, obtained in any drug store. In cases of determination of blood to the brain, this

article, given in cathartic doses, is prompt and will soon restore the equilibrium of the circulation. It should never be given without being mixed, one grain to ten, with sugar-of-milk, as it is so powerful that it has an irritating effect on the mucous coat of the alimentary canal. Thus prepared, the usual dose is from one to four grains, two or three times a day; as an alterative, give from one-half to one grain. In old cases of mercurial poisoning it acts promptly; as a tonic and alterative, the tincture of May-apple is generally preferred to podophyllin, in doses of ten to fifteen drops.

It is a native plant of common growth.

MILK-WEED, Common Silk-Weed (*Asclepias Syriaca*).

When this plant is cut, or an incision made in it, a milky juice exudes which is reputed a cure for warts. The root acts on the kidneys and is a valuable remedy in dropsy, retention of urine, dyspepsia, scrofula and rheumatism. It is given generally in decoction. Bruise four ounces of the root and boil in three quarts of water down to one quart or less, and take half a teacupful three times a day. Dose of the saturated tincture, from one to two teaspoonfuls, three times a day.

Description—Height, two to four feet, with large, smooth stalks and large, oblong leaves, two opposite each other on the stalk; having large, whitish-purple flowers; with large, oblong pods filled with a sort of fine cotton and seeds.

MISTLETOE (*Phoradendron Flavescens*).

Dr. Long recommends this as a remedy to ameliorate the troubles of parturition and claims for it many advantages over ergot, particularly that it acts more promptly and surely, and that it is equally effective in delayed menstruation. Dose, from half to a teaspoonful, every twenty or thirty minutes, until the desired effect is produced.

MOUNTAIN SAGE (*Artemisia Frigida*).

Part employed—The herb.

This herb grows in the Western United States and is used as a substitute for quinine, as a fluid extract, dose one to two teaspoonfuls. In the treatment of periodic fevers a teaspoonful of the fluid extract is given in a glass of hot, strong lemonade, one hour before the expected chill, and repeated in thirty minutes if the stage of perspiration is not exhibited. In rheumatism, scarlet fever, diphtheria, etc., it is given hot as above and repeated every half-hour until perspiration and urination are established.

To be had at drug stores.

MOTHERWORT (*Leonurus Cardiaca*).

Parts used—The leaves and the tops.

The extract of this plant is valuable for nervous complaints of females, such as neuralgia, spasms, nervous fevers and wakefulness. The warm infusion of the tops and leaves is beneficial in suppressed menstruation from colds and suppressed lochial discharge. Dose of the decoction, from one to two wineglassfuls, every two or three hours; of the extract, three to five grains.

Description—Height, from two to three feet, bearing some resemblance to hoarhound, but has much longer and darker-green leaves. It is found growing usually along road-sides and about old buildings, generally in bunches.

MULLEIN (*Verbascum Thapsus*).

Part used—The leaves.

A decoction of the leaves is used in catarrh, coughs, dysentery, piles, inflammation of the bladder and bleeding from the lungs. Used externally they are an admirable remedy in quinsy, malignant sore-throat and in mumps, and afford immediate relief in acute rheumatism, to be applied in the form of a fomentation with hot vinegar. When made in the form of a poultice they are good applied to ulcers, sores and tumors. A decoction made of equal parts with horsemint and drunk freely three times a day is an excellent remedy for disease of the kidneys.

Description—Mullein is a very common plant growing in all parts of the country, in old fields and open grounds. It has a straight stalk, from three to seven feet high. The leaves are soft and velvet-like, and at the top it has a spike of yellow flowers.

MUSTARD (*Sinapis Alba*).

Part used—The seeds.

The bruised seed or the powder, mixed with Indian meal or flour to form a plaster, is excellent to relieve inflammation, nervous headache, sickness at the stomach, or soreness of the lungs from a sudden cold. Dyspepsia has often been cured with the seeds, particularly when it was accompanied with constipation. Dose, a teaspoonful three times a day. It is often used externally to relieve rheumatic pains. Mustard applied to the nape of the neck often relieves nervous headache. Neuralgia is sometimes relieved by it. And in eruptive diseases that have left the surface it is an admirable remedy for bringing out the eruption again. In those cases it should be applied to the extremities. Mustard foot bath is excellent to allay fever, relieve headache, promote perspiration, and for suppressed menses. In administering mustard as an emetic for poison-

ing, give the patient a teaspoonful mixed with a glassful of warm water, and repeat the dose in fifteen minutes.

Mode of Preparing the Poultice—Take a sufficient quantity of powdered mustard to make a thin paste, mix with boiling water, with a small quantity of vinegar added when a very strong poultice is required, and spread on brown paper or cloth, with a piece of thin muslin over it. Apply for ten to twenty minutes. If the skin is very irritable afterwards, a little flour should be sprinkled over it, or cream applied to the inflamed surface. If the white of an egg be used to mix the mustard with, it will prevent blistering; sirup or molasses may be used for the same purpose, but is not so efficacious.

NETTLE (*Urtica Dioica*).

Part used—The entire plant.

For spitting of blood and all hemorrhages of the lungs, stomach and urinary organs, this is one of the most powerful agents in the vegetable materia medica. It has also been employed successfully in diarrhea and dysentery. It should be drunk freely in the form of a decoction. For hemorrhages, the expressed juice of the fresh leaves is regarded as more effective than the decoction, given in teaspoonful does every hour or as often as the nature of the case demands. It is a favorite remedy among the Germans for neuralgia, to be taken in doses of four tablespoonfuls of the decoction three time a day, and at the same time bruise the leaves and apply as a poultice to the affected parts. When ten or twelve of the seeds are taken at a dose, three time a day, they are said to be a very effectual remedy for goiter, or "big neck."

It may be found growing plentifully in almost all parts of the United States. and is sometimes known as the "stinging nettle."

NIGHT-BLOOMING CEREUS (*Cactus Grandiflorus*).

Parts used—The young branches and the flowers.

This plant is now regarded as an effectual cure for one form of the heart-disease, medically called *angina pectoris*. It must be given in small doses two or three times a day and its use perseveringly employed. The saturated tincture should be used. It is made by adding two ounces of the fresh bloom to half a pint of alcohol. Dose, one to five drops, every one, two or three hours, according to the urgency of the symptoms. But after these have passed it may be administered regularly three times a day in two or three-drop doses. This medicine is also recommended in dropsy and rheumatism.

This plant grows plentifully in Mexico, but seldom found in the United States except in drug stores.

NUX VOMICA (*Dog Button*).

In the administration of this medicine, great care must be observed, as it is a powerful poison.

It is used in paralysis, neuralgia, in all forms of neurosis and nervous debility, dyspepsia, obstinate constipation, painful and suppressed menstruation, chronic dysentery, chills and fever, St. Vitus's dance, mania, chronic inflammation of the spleen and rheumatism. Dose of the extract, from one sixtieth, to one thirteenth of a grain. Nux vomica must not be used in local inflammation of the brain or spinal cord, where there is determination of blood to the head, nor for apoplectic or corpulent persons.

It is an efficacious remedy in cholera-morbus and diarrhea, in cases which are attended with much debility, and likewise in cases of congestion of the liver. It is a valuable medicine in indigestion, accompanied with pain and flatulence of the stomach. For this purpose, from one to three drops of the tincture may be taken in water. One dose will ordinarily be sufficient, but if not, a second may be taken in an hour or two. A strong tincture may be prepared by adding four ounces of powdered nux to half a pint of alcohol (96°). The dose of this is from one to five drops.

Brucine—From Nux Vomica is obtained another and valuable alkaloid called brucine, which possesses the powers of strychnia, but in a far safer degree, as it is not so powerful an agent. It is being investigated and some sanguine practitioners entertain high expectations of seeing it very prominent in the list of remedies for nervous debility and neurosis generally.

It is from this article that strychnine—one of the most deadly poisons known—is obtained, half a grain of which will frequently cause death.

Found only in drug stores.

NUTMEG (*Nux Moschata*).

It is generally used in combination with other medicines and to flavor articles of diet and drink, but as a general rule, the less it is used for the latter purpose the better. When charred it has been used with success in the cure of chills and fever, taken in doses of ten to twenty grains, twice a day, and at the time the chill comes on. Grated nutmeg mixed with lard is often used as an application to the piles. It is used to remove flatulency, but should be taken in small doses, as from five to ten grains, for in large doses it will produce stupor and delirium.

NUT-GALLS (*Galla*).

These galls are used in bowel-complaints and are especially good in chronic diarrhea. For children it is best to boil in milk.

Dose of the infusion, two tablespoonfuls; of the tincture, ten to twenty drops, to be taken two or three times a day. Add a half-teaspoonful of alum to one pint of the strong infusion; this makes a valuable injection in leucorrhea, falling of the womb and gleet. Three of the galls are sufficient to make a pint of the strong infusion. Because of their astringency they are useful in bleeding from the lungs, stomach and bowels, and can be given in the form of powder in doses of from one to ten grains every three hours.

Found in drug stores.

ORANGE (*Citrus Aurantium*).

The juice of the orange is a good remedy for the scurvy, and useful in measles, small pox, etc. It is used freely in fevers, when there is a dark brown coat on the tongue. The rind or peel should not be taken into the stomach, as it is very difficult of digestion. Orange juice is mildly tonic, but should not be used in large quantities, as it has produced injurious symptoms. The oil of orange is prepared from the rind, and the oil of neroli from the flowers.

WILD GRAPE (*Berberis Aquifolium*).

This plant possesses extraordinary powers as a combined alterative and tonic. It is said to be a very reliable remedy in syphilitic and scrofulous diseases and salt rheum. Dose of the fluid extract, from fifteen to thirty drops, three times a day. A decoction of the root may be drunk freely.

Dr. R. Leonard, of Chicago, uses the following language in reference to this shrub, or plant, in the treatment of syphilis: "During the past year, having considerable venereal practice, I have used berberis aquifolium for syphilis, almost to the exclusion of other internal remedies, with very gratifying results. Occasionally I have combined five gr. doses of iodine of potassium, and in nearly one hundred cases have had the pleasure of seeing the disease disappear more promptly in every case than it ever did when I relied upon the old forms of treatment."

Prof. Bundy of the California Medical College thus speaks of this plant: "It was first brought to my notice by a gentleman who had been suffering for years from syphilis and after using this remedy for a few months every vestige of the disease disappeared and the man has been perfectly well ever since. *I have cured men with it who were simply putrid with this disease.*

If your wife suffers from leucorrhea or whites, go to the drug store and purchase 75 cents' worth of grape root extract and let her take it. In a week or ten days she will not know that she has ever had the disease. I never knew it to fail of a cure. *See page 416.*

Description—It is a shrub from two to six feet high, bearing acid berries, containing from one to three seeds.

Parke, Davis & Co.'s preparations of this plant are regarded by physicians as superior to those found elsewhere.

OPIUM (*Papaver Somniferum*).

This is the concrete juice of the unripe seed vessels of the white poppy, which is cultivated in gardens, as a flower. It is used in all forms of disease where pain, nervous irritability, spasms and morbid mucous discharges are present. It is employed to allay pain and lessen nervous excitability in nearly all diseases.

The dose of opium varies according to the susceptibility of the patient to its influence; from one fourth of a grain to two grains, and in extreme cases as many as three grains may be given, two or three times a day. For the purpose of producing sleep and relief from pain, under ordinary circumstances, the dose is one grain; of the tincture ten to forty drops; twenty-five drops is the usual dose for a strong, healthy adult. Externally, in the form of a liniment or plaster, it is used to relieve pain and subdue inflammation, as in rheumatism, neuralgia, erysipelas, etc. As a general rule, it should not be used (except in combination) where there is determination of blood to the head, or in constipation. In too large doses, it produces an apoplectic state and death. There are thousands, including many physicians, who use opium very imprudently and destructively. Some extremists say there are but few drugs that have produced more deaths than this, especially among children. At the first cry of helpless innocence, the young mother calls forth that potent pain-relieving and sleep-producing potation in the form of her favorite soothing syrup, thereby endangering the life of the infant and laying the certain foundations of future misery by undermining and destroying the health of the child.

In certain conditions of the system, the administration of opium or morphine is extremely dangerous; and it is questionable whether either of these, including laudanum and paregoric, which are preparations of opium, contain any curative properties. But the fact is unquestionable, that opium in any of its forms may produce injurious and possibly fatal effects in ignorant hands and injudiciously administered.

If the skin is dry and hot and the pulse hard, small and quick, the mouth dry, the pupils contracted, the eyes dull and heavy, the face flushed, and there is headache or determination of blood to the brain, with an expressionless countenance, then if opium should be taken, it would be at the peril of life. At any time when the above conditions prevail do not permit any one to administer this medicine.

Papaverin—This is the aqueous extract of the poppy, or opium, and is quite different in its effects from opium or morphine

The instances are numerous where the calming properties of opium are desired without its constipating effects, as in neuralgia, colic, rheumatism, gout and other painful affections. This preparation may be used here, as it does not leave the same very unpleasant effects that follow the use of opium, as headache, sick stomach, restlessness, delirium, etc. This article is prepared in either the fluid or solid form. The dose is from one-sixth to one-eighth of a grain. The preparation called *svapnia* is said to be similar to the above.

Morphine—This is the concentrated preparation of opium. There are several preparations of morphine employed; namely, sulphate, valerinate, acetate and muriate of morphine or morphia. But the sulphate of morphia is most commonly used. It is in the form of a fine, white powder, the dose of which is from one-eighth to one-half a grain, one-sixth of a grain being equivalent to one grain of opium. Persons habituated to its use are able to bear double what they otherwise would. It should never be given to infants, as there is danger of giving too much.

Laudanum—This is a tincture of opium. It can be made by tincturing a half-ounce of opium in a half-pint of spirits. Dose is from five drops to twenty-five, but the latter amount should only be given in cases of extreme pain. For a child one month old, one drop only should be added to a tablespoonful of water, and one teaspoonful of this given for a dose every four hours; and then it may be increased according to age.

Paregoric—This a milder preparation of opium. It is made of opium, oil of anise, benzoic acid, gum-camphor and dilute alcohol. It is anodyne, used to allay pain. Dose, for children under three years of age, five drops, and over that age ten drops.

ONION (*Allium Cepa*).

The onion is a popular remedy for croup. It may be sliced and sugar mixed with it and the sirup given to the patient; or it may be roasted and the expressed juice given. For manner of using, see "Croup," page 434. It is useful in colds of infants, and makes a good poultice for foul ulcers, boils, suppurating tumors, etc. For coughs and pain in the side or chest, slice onions and fry them, and apply them in form of a poultice at night, and it will give relief to the patient and afford sleep. Onions are used as a disinfectant by hanging them around the house and in the sick-room.

OLIVE OIL (*Oleum Olivæ*).

This oil taken internally is useful in inflammation of the stomach and bowels. Dose as a laxative, one tablespoonful; and with some patients it may require even more. This oil has been

used in coughs and catarrh. It is employed with good success when applied externally over the whole surface of the body, in scarlet fever and other febrile eruptive diseases. It is regarded as a sure cure for the bite of poisonous snakes, taken internally and at the same time applied externally. Dose, a tablespoonful every ten to twenty minutes, until eight or ten are taken. Olive-oil is one of the mildest laxatives we have, and should always be used with little children where castor-oil is now used. In consequence of the injurious and destructive effects castor oil has on their tender digestive organs, it should never be given if it can be avoided. Olive-oil is a valuable article for injections, by rubbing up two or three tablespoonfuls with the yolk of an egg and adding a little water. Dyspeptics should not use this oil. It is much adulterated with cotton seed oil, and therefore great care should be exercised in the purchase of it, in order to obtain the pure article.

OIL OF CAJEPUT (*Oleum Cajeput*).

This oil is employed with good effect in chronic rheumatism, cholera-morbus, colic, flatulence, spasms, convulsions, cramps of the stomach and bowels, and where a powerful stimulant is required. The dose is from one to five drops on sugar. It is useful in many cases of toothache, applied on cotton to the cavity of the tooth. It is often used externally for painful affections, as neuralgia, rheumatism, etc., but in such cases it is generally combined with other oils in the form of a liniment.

Found only at drug stores.

PARAGUAY TEA (*Ilex Paraguaiensis*).

Part used—The leaves.

This is a powerful nerve stimulant, not acting like tea or coffee. Persons who take this can go without eating for an incredibly long time. It sustains the system during the hot summer months in a remarkable manner, preventing the tired and relaxed feeling that exists at that season of the year. Dose of the fluid extract, one-half to a teaspoonful three or four times daily.

PARSLEY (*Apium Petroselinum*).

Parts used—The herb and seeds.

This herb is noted for curing dropsy, for which purpose it is to be used freely in the form of a decoction. An infusion is efficacious in suppression of urine and inflammation of the kidneys and bladder. This plant is generally employed by mothers to arrest the

flow of milk after weaning children. For this purpose the leaves are to be bruised, saturated with camphor and applied hot as a fermentation. The powdered leaves and seeds, sprinkled on the head, will effectually destroy vermin of all kinds. They are also of much value in the night-sweats of consumption. Dose of the fluid extract, from one half to a teaspoonful, three or four times a day

This is a common plant, growing throughout the country.

PAPAW SEEDS (*Uvaria Triloba*).

It is employed in constipation, dyspepsia and piles. In large doses it acts as an emetic. Dose of the fluid extract, ten to twenty drops, three or four times a day.

PARTRIDGE-BERRY, Winter Clover, Squaw-Vine, Checker-berry (*Mitchella Repens*).

Part used—The vine.

A decoction of the vine is reputed to cure dropsy. To be drunk freely three or four times a day. It is popular among women in cases of parturition. Its use is very common among the Indians; the squaws drink the decoction several weeks before and during delivery, which it is said renders that dreaded event remarkably safe and easy. It is highly esteemed by some as a remedy in piles and diarrhea, for which it is prepared by boiling in sweet milk; to be drunk three or four times a day. The tea has been used with success in suppression of urine.

Description—It is a small, ever-green, perennial vine, lying close to the ground, usually in beds or mats. The leaves are small and round; flowers, white; the berries, bright scarlet. It is found in shady woods.

PEACH-TREE (*Amygdalus Persica*).

Parts used—Bark, leaves and pits.

Peach-pits tinctured in brandy, are an efficacious remedy in the treatment of leucorrhea. The proportions are two ounces to a pint of brandy. Dose, a teaspoonful three times a day. This tincture is a powerful tonic, and for this purpose it is used in fever and ague, debility, etc. Bitters made of the leaves, or of the bark of the root, taken in tablespoonful doses, four or five times a day, is a popular remedy for the cure of jaundice. A tea or sirup of the bark or leaves is an excellent purgative, and useful in bowel complaints and worms; given to children in teaspoonful doses, until it operates on the bowels. To grown persons, double that quantity should be

given. A tea of the bark is one of the best remedies for bloody urine, and for bleeding from other internal parts. The leaves, employed as a fomentation and often renewed, are a superior remedy for inflammations, especially of the stomach and bowels. The gum which exudes from the peach tree answers all the purposes of gum-Arabic, and is regarded as superior to it. A strong tea or sirup of the bark or leaves is most admirable to check vomiting; and especially for nervous vomiting, it is one of the most positive remedies we have. It will generally control the vomiting of cholera-morbus. It usually acts very promptly in allaying vomiting in morning sickness. For these purposes, it may be taken in doses of two to four tablespoonfuls every one or two hours, or oftener in urgent cases.

PENCIL FLOWER (*Stylosanthes Eliator*).

Part employed—The herb.

This plant grows in the Middle and Southern States, and the fluid extract of the herb in doses of ten to twenty drops, three times a day prior to confinement, is used as a uterine sedative and tonic. Its effects are to relieve the irritability of the uterus and consequent abnormal pains liable to occur during the latter months of gestation.

Procured at drug stores.

PEONY, Piny (*Pæonia Officinalis*).

Parts used—The root and seeds.

This is employed in spasms, whooping-cough, St. Vitus's dance, and in nervous diseases generally. It is to be made in an infusion, one ounce of the root coarsely bruised to one pint of boiling water. Dose, from a third to half a teacupful three times a day; of the powdered root, a teaspoonful three times a day, in case of fits. It was regarded in ancient times as a sovereign remedy for fits, or epilepsy.

It is cultivated in gardens on account of its beautiful red flowers.

PEPPERMINT (*Mentha Piperita.*)

Parts used—Leaves and stems.

Useful to check nausea and vomiting, to expel wind, relieve hysterics and prevent the griping effects of cathartics. Bruised and applied to the stomachs of children, it is useful to allay sickness and vomiting. It is mostly used in the form of essence. It is also a superior remedy for sea-sickness.

Description—From one to two feet high. It grows wild and is extensively cultivated in many parts of the country.

PENNYROYAL (*Hedeoma Pulegioides.*)

Parts used—The tops and stems.

The warm infusion is used to promote perspiration. It is employed in colds, obstructed menses, colic in children, and as a sweating and cooling drink in fevers. The tincture, or the oil of pennyroyal, is often employed in whooping-cough and spasms, to be taken in doses of two to ten drops. Equal parts of the oil and linseed-oil make a valuable application for burns. It is said to be useful in rheumatic affections, used as a hot fomentation and applied externally. The infusion may be drunk freely several times a day.

This is an annual plant, growing plentifully throughout the country.

PENTHORUM SEDOIDES.

This remedy has of late attracted much notice as a cure for catarrh, catarrhal inflammation of the larynx, chronic bronchitis, with increased secretion of mucus, and catarrhal affections of the stomach and bowels. It is demulcent, laxative and somewhat astringent in its action. Dose of the extract, ten to twenty drops.

PERSULPHATE OF IRON.

This preparation of iron is the most powerful external astringent that we have and will arrest hemorrhage from small vessels very promptly. As an injection for falling of the womb it may be used in solution of ten or twenty grains to the ounce of water, or the common solution diluted one-half is strong enough. In piles, if the tumors are not too large, it cures them entirely. It may be applied, diluted one-half with water, twice a day, and held on the tumors a few minutes. If the tumors are internal it must be used by injection, or just after stool, if they then protrude.

PERUVIAN BARK (*Cinchona Officinalis*).

There are several varieties, the principal of which are red, pale and yellow barks. This is a popular remedy for chills and fever. Quinine, which is an extract of this bark, is now generally used instead of it and for the same purposes. The yellow bark is gener-

ally employed in the preparation of quinine. The red is recommended as a cure of opium habit and also of alcoholism.

Found at drug stores only.

PERSIMMON (*Diospyros Virginiana*).

Parts used—The bark and unripe fruit.

The infusion forms an invaluable gargle for ulcerated sore mouth and throat, and likewise an injection in leucorrhea. It has been successfully used in chronic dysentery, diarrhea, flooding, and fever and ague. Dose of the infusion or sirup, one teaspoonful or more every three hours.

This tree is common in the Middle and Southern States.

PETROLEUM (*Mecca Oil*).

The Mecca oil is the crude petroleum or coal-oil.

It is said to be used very successfully in chronic bronchitis and laryngitis (clergyman's sore throat), where there is great irritability. It is also employed in scrofula. Dose, from thirty to sixty drops, three times a day. It is often given in same size doses as a remedy for kidney diseases. It is one of the best remedies in use for wounds, applied externally and likewise in skin-diseases. The common kerosene or lamp-oil is an admirable remedy in croup, applied externally to the throat and chest, at the same time taken in doses from two to five drops internally. Also in many cases of sore throat and diptheria it acts promptly. It is a very excellent application for burns, and has frequently cured some forms of rheumatism.

PINK-ROOT, Carolina Pink (*Spigelia Marilandica*).

Part used—The root.

It is a valuable remedy for worms, and when employed for this purpose senna should be added to prevent any nervous symptoms and to increase the virtues of the pink. Steep one ounce of the pink-root and four drachms of senna in one quart of water. Dose, two tablespoonfuls, twice a day. When the powdered root is employed, give one to two teaspoonfuls; to children ten to twenty grains, according to age.

Description—Height, from one to two feet, purplish-colored stalk, pink-shaped flowers, which are of a bright red color outside and yellowish inside.

It grows wild in most of the States.

PLEURISY-ROOT, Butterfly-Weed, White Root, (*Asclepias Tuberosa*).

Part used—The root.

This is highly extolled as a remedy for the cure of pleurisy. It is a superior medicine for relieving difficult breathing and diseases of the lungs. A warm tea of equal parts of pleurisy-root and wild yam is unsurpassed for the cure of colic. This root is a good remedy in acute rheumatism and dysentery. As a diaphoretic, or sweating medicine, it is regarded unsurpassed. It relieves pain in the breast and bowels, and assists digestion. Dose of the infusion or strong decoction, from one to four tablespoonfuls, to be repeated once an hour, or as often as the exigencies of the case may require, or until free perspiration is induced; after which, give a tablespoonful three times a day; of the powder, thirty to sixty grains (half to a teaspoonful) three times a day. Dose of the extract or tincture, from thirty to fifty drops.

Description—This plant has a large, white, crooked, branching, perennial root, sending up several erect, round, hairy or wooly stems, branching at the top, green or red. Leaves promiscuous, very hairy, pale on the under side, of an oblong shape, and thick or fleshy. Flowers of a beautiful, brilliant orange-color.

It is found in open lands, gravelly and loose soils, along streams and roadsides.

PLANTAIN (*Plantago Major.*)

Part used—The whole plant.

Plantain is a superior remedy for neuralgia. Take two to five drops of the tincture every twenty minutes. Usually a few doses will give relief. The juice of the leaves will cure the bite of rattlesnakes, poisonous insects, etc. It is to be taken in tablespoonful doses every hour, and at the same time apply the bruised leaves to the wound. When applied to wounds, ulcers, erysipelas, salt-rheum and other affections of the skin, in a poultice of the leaves, they are invaluable. It is said that a strong decoction of the leaves and root will break the chills; it will cure in the early stages of syphilis when taken in one to two wineglassfuls, three times a day. The green seeds and stems boiled in milk will generally cure diarrhea and bowel-complaints of children. It is also very useful in scrofula, piles and leucorrhea. Dose of the decoction, from one-half to a teacupful, three times a day.

Native and grows in all parts of the country.

POISON HEMLOCK, Poison Parsley (*Conium Maculatum*).

Parts used—Leaves and seeds.

This is useful in scrofula, goiter, enlargement and palpitation of the heart. It is also used for quieting the nerves and inducing sleep. Dose of the extract, one-fourth to half a grain; of the inspissated juice, from half a grain to two grains, three times a day. The leaves are very useful applied as a poultice to tumors and ulcers. This plant is a narcotic poison and must be used with care. It is not much used latterly.

Found in meadows and swamps.

POMEGRANATE (*Punica Granatum*).

Parts used—Rind of the fruit and bark of the roots.

The bark is almost a specific for the expulsion of tape-worm. Two ounces of the bark are steeped in two pints of water for twelve hours, after which the whole is boiled down to one pint, strained, and given in wineglassful doses every two hours, until the whole is taken. It usually causes several passages of the bowels or nausea and vomiting. The doses generally require to be taken for several successive mornings before the whole of the worm passes away.

Found only in drug stores.

POKE ROOT (*Phytolacca Decandra*).

Parts used—The roots, leaves and berries.

Both the berries and root of this plant are in high repute for the treatment and cure of rheumatism. Take half a pint of the juice of the ripe berries and an equal quantity of a strong decoction of rattle-root; add one gill of the best brandy. This given in doses of one to two tablespoonfuls three times a day, has cured long standing cases of rheumatism. The juice of the berries dried in the sun until it forms the proper consistence for a plaster, applied twice a day has cured cancers. Dose of the extract, two to three grains; of the powdered root, three to five grains, two to three times a day. The root, roasted in embers and ashes and made into a poultice and applied, will scatter tumors and felons if applied in time; if too late for that it will hasten suppuration or the formation of "matter." It is said that an application of the juice of the leaves will cure the itch and also ringworm.

Poke is a favorite remedy with some physicians in the treatment of syphilis, scrofula and chronic skin diseases. The old, dried root of this plant is of but little value.

Description—It grows from four to six feet high, with a large stalk; leaves large and scattering, with large bunches of soft, blood-red berries.

POOR MAN'S HOUR GLASS (*Anagallis Arvensis*).

Part used—The herb.

This plant has recently proven to be an excellent remedy for asthma. It is of much value in hysterics, epileptic fits and in all nervous affections. Dose of the tincture, in acute cases, from three to five drops, every hour or two; in chronic cases, three times a day; of the infusion, a teaspoonful. It must be used with care, as it is poisonous in large doses.

Description—It is a creeping plant, of a bright-green color, with small, scarlet-purple blossoms, opening in cloudy weather, found in gardens and along roadsides.

POPPY (*Papaver Somniferum*).

Parts used—Leaves, flowers and seeds.

This is the common white poppy and has been referred to under the head of opium, which is a product of this plant and generally used for the same purposes. A tea or decoction of the leaves, blossoms or heads may be used in place of opium. Poultices made with this decoction are very excellent when applied to painful swellings, ulcers and inflammation, to soothe and lessen the pain. The infusion is used in nervous headache, cholera morbus, toothache and earache.

Cultivated in gardens as a flower and for medicinal purposes.

PRICKLY ASH (*Xanthoxylum Fraxineum*).

Parts used—The bark of the root and the berries.

The berries in the form of bitters are esteemed a good remedy in cholera and are unsurpassed as a cure for rheumatism. It is an excellent tonic in convalescence from fevers and other diseases. It promotes general perspiration, warms and invigorates the stomach and strengthens the digestive organs. It also tends to equalize the circulation. The tincture of the berries is a superior remedy for pains in the stomach, colic, diarrhea, cold feet and for whatever depends on a sluggish circulation. And the tincture, made by steeping the inside bark in whisky, will afford relief in the most inveterate cases of toothache. A small portion of it is to be held in in the mouth. The fresh bark chewed will answer the same purpose. Dose of the tincture, from one to two teaspoonfuls three times a day; of the powder, ten to thirty grains.

Description—It is a small tree, from twenty to thirty feet high. The ripe berries are black and near the size of a pea, are hot to the taste, and contain a fragrant oil which gives an odor somewhat like that of lemon.

PRICKLY ELDER, Toothache Tree, Angelica Tree, Southern Prickly Ash (*Aralia Spinosa*).

Parts used—The bark and berries.

It is used in diarrhea and rheumatism of a chronic character. The tincture of the bark and berries is used to relieve toothache. Its medicinal properties are very similar to those of the prickly ash. Dose of the decoction, cold, two or three tablespoonfuls, two or three times a day; of the tincture, one or two teaspoonfuls.

Description—Grows from ten to twenty feet high, sometimes, in the South, attaining the height of fifty or sixty feet. It has small, white flowers, and small, blackish, juicy berries. The bark has a peculiar, aromatic odor, and prickly, bitterish taste.

PRINCE'S FEATHER, Amaranth (*Amaranthus Hypochondriacus*).

Parts used—The leaves.

This herb is most noted as an effectual cure for profuse menstruation, for which purpose a tea is to be drunk freely, four or five times a day. It is an astringent, and as such, it is useful in bowel-complaints.

Usually cultivated in gardens as an ornamental plant.

PUMPKIN-SEEDS.

A strong infusion of these seeds will expel the tape-worm. It is also good in inflammation of the bladder and bowels, strangury and retention of urine. The oil of pumpkin-seed is obtained by expression, and in most cases is a quick and sure remedy in scalding of the urine. Whenever a diuretic is needed it is safe and efficient. Dose of the oil, from six to twelve drops four or five times a day; of the infusion, drink freely every two or three hours. A good way to prepare the pumpkin-seed for tape-worm, is to remove the outer envelope and then beat to a paste in fine sugar and dilute with milk or water. Of this the patient may take freely on an empty stomach, followed in a few hours with a large dose of castor-oil and turpentine. A fluid extract is now prepared with alcohol and glycerine in drug stores, which is a good preparation. The dose is from two teaspoonfuls to one tablespoonful repeated every four hours, and followed each day by a brisk cathartic of one drop of Croton-oil in two tablespoonfuls of castor-oil. It is necessary to have a brisk cathartic in order to expel the tape-worm. It should be remembered that all remedies administered for tape-worm should be given on an empty stomach.

PRIVET (*Ligustrum Vulgare*).

Parts used—The leaves.

The decoction is efficacious as a gargle, in ulcers of the throat and mouth, ulceration of the bladder and ulceration of the ears with offensive discharges. They are good in the diarrhea and summer-complaints of children, ulceration of the bowels and stomach, and in excessive flow of urine. Dose of the decoction, from one to two wineglassfuls, three times a day; of the powder, twenty to fifty grains.

QUAKING ASP, Aspen, White Poplar, Silver Poplar (*Populus Tremula*).

Parts used—The inner bark of the tree.

The inner bark is one of the best bitter tonics in all cases of ague, intermittent and bilious fevers, where strengthening medicine is needed. It may be used freely in infusion or decoction and in powder or bitters. Dose of the powdered bark, a teaspoonful three times a day; and in bitters it may be used freely as a restorative in loss of appetite, weak digestion, dyspepsia and chronic diarrhea. It is also useful in diseases of the kidneys and bladder.

Description—The tree is straight and slender and from twenty-five to fifty feet high. The leaves are almost constantly in a state of tremulous motion, even when there is no perceptible breeze stirring. The outer bark of the tree is of a grayish color, sometimes nearly white, and very smooth.

QUEEN OF THE MEADOW, Gravel-root (*Eupatorium Purpureum*).

Parts used—The root and the inner bark of the shrub.

A strong decoction of the root is esteemed almost an infallible remedy for gravel. Both the root and inner bark of the shrub, in consequence of their direct action on the kidneys, are very efficacious in the treatment of dropsy. It is prescribed in the first stages of fevers to produce sweating, by giving in decoction freely and often, and is a safe and sure remedy. It is also highly extolled as a remedy in sterility, threatened abortion and incontinence of urine. Dose of the decoction, from half to a teacupful; of the tincture, twenty to thirty drops, three or four times a day.

Description—Stems four to six feet high, round, smooth, of a purple color around each joint, bearing many purple or pale-reddish blossoms. Leaves from three to five at a joint, broad, rough and jagged. Grows usually near streams.

QUASSIA (*Picræna Excelsa*).

Parts used—The wood of the tree.

The wood of this tree is tonic, and very good in dyspepsia and bilious fever, and ague. The infusion is employed in the treatment of worms, and in general debility, and by convalescents from fevers. Dose of the tincture, one to two teaspoonfuls; of the powder, thirty grains; of the infusion or decoction, half a teacupful three times a day. The latter may be made by infusing two ounces of the fine chips in two quarts of cold water for ten hours. An injection of the decoction will expel the pin-worm.

QUININE (*Sulphas Quinia*).

This is a very popular remedy in various forms of fevers, especially the chills and fever, and other diseases that manifest a periodic character. The dose, in these cases, ranges from two to ten grains, but the latter quantity, it is reasonably believed, is much larger than is usually necessary for the purpose of preventing a paroxysm of ague, much smaller doses, in ordinary cases to which the medicine is specially adapted, being sufficient to effect the desired object. It is best given in doses of two grains repeated every three hours until ten or twelve grains are taken. It should be given only during the intermissions, that is while the patient is free from fever. Quinine is believed by some physicians to possess tonic properties, the dose, for such a purpose, being from one-tenth to one-half a grain, taken two or three times a day.

RAG-WEED, Hog-weed, Roman Wormwood (*Ambrosia Elatior*).

Part used—The leaves.

This is a good cure for bowel-complaints. A strong tea of it is a remedy for dysentery, many regarding it as infallible. The decoction or tea is useful as a gargle for sore throat, and as an injection in leucorrhea and gleet. Piles have frequently been cured by stewing the green leaves in fresh lard or sweet cream, and using as an external application. The leaves make a superior fomentation for inflammations of various kinds. The tea, or infusion, should be freely, three or four times a day.

Description—It is from two to three feet high, with a branching top, and opposite, ragged leaves, growing along roadsides, in fields and waste places.

RASPBERRY (*Rubus Strigosus*).

Parts used—The leaves and root.

This is an excellent remedy in dysentery and all bowel com-

plaints of children. It is used to mitigate labor pains in childbirth, and to relieve painful menstruation. The infusion is a valuable wash in sores, ulcers and raw surfaces and an effectual astringent. The leaves of the red species are said to be the best. Dose of the infusion, from one-fourth to one-half teacupful, three or four times daily.

RED CLOVER (*Trifolium Pratense*).

Parts used—The blossoms and leaves.

This is an admirable remedy for malignant ulcers, cancers, scrofula, indolent sores from burns, and incontinence of urine. It possesses very soothing properties and promotes healthy granulation. It has obtained considerable celebrity in all diseases of the skin and mucous membrane, whether tetter, salt-rheum or ulceration. A decoction is to be boiled to an extract and applied twice a day. It has been the means of effecting some remarkable cures of cancers. A weak tea will relieve hay-asthma, and often cut short the disease. A tea of the tops and leaves, taken freely, is efficacious in relieving and shortening the duration of whooping-cough.

It is of common growth.

RED CEDAR (*Juniperus Virginiana*).

The leaves of this tree are good in chronic rheumatism, scalding urine and suppressed menses. The oil is used as a stimulating application to bruises, rheumatic pains, etc. Dose of the infusion, from one to two wineglassfuls; of the powdered leaves, one to two drachms; of the oil, five to ten drops, taken twice a day. The red cedar is an evergreen tree found in many parts of the United States.

RED ROOT (*Ceanothus Americanus*).

Part used—The root.

It is an excellent astringent in diarrhea and dysentery and has been used with good effect in the first stages of consumption. It is also employed in asthma, bronchitis and whooping-cough. Dose of the decoction, from one to two tablespoonfuls three or four times a day. In the form of a gargle it is used with good effect in sore-mouth, throat and in scarlet fever.

Description—Height, from one to three feet, and a small, bushy top of shrubby stems, and grows on barren lands in almost all parts of the country.

PICHI (*Fabiana Imbricata*).

Parts used—The stems and leafy branchlets.

This remedy enjoys a great local reputation in Chili, in the treatment of urinary diseases, and has been introduced in this country with success in the treatment of dyspeptic disorders and for catarrhal inflammations of the urinary tract. Recently it has been largely prescribed in kidney disorders. It is of value in vesical catarrh caused by the mechanical irritation of gravel and in uric acid diathesis. It allays irritation and favors expulsion of the stone. Dose of fluid extract of the leafy branchlets (supplied by Parke, Davis & Co., Detroit), ten to forty drops.

RESIN, OR ROSIN (*Resina*).

It is used in bleeding piles, in doses of twenty to sixty grains, given in sirup and likewise used in irritable and hacking coughs. The vapor arising from burning resin is said to be good inhaled into the throat and lungs in bronchitis and diseases of the lungs. Its principal use is to give adhesiveness and consistence to ointments and plasters. Resin is a hard, brittle substance, sometimes called rosin. It is a product of the pine-tree. After the oil has been distilled from the turpentine of the pine tree, a solid substance is left, which is the ordinary rosin of commerce.

RHATONIA (*Krameria Triandria*).

Part used—The root.

This is an excellent remedy for bleeding of the nose, spongy and bleeding gums or the surfaces of wounds, or in bleedings of internal organs. It is also employed in excessive menstruation, involuntary flow of urine, gleet, chronic diarrhea and in night-sweats. It is somewhat tonic, but a powerful astringent, and very useful whenever a medicine of this kind is needed. Dose of the infusion, from half to a teacupful; of the powder, ten to twenty grains; of the tincture, one to three teaspoonfuls; of the extract, five to ten grains, two or three times a day. But it is used much more frequently in hemorrhages.

Found only in drug stores.

RED LOBELIA (*Lobelia Syphilitica*).

Parts used—The root and leaves.

This species of lobelia is regarded by those who are acquainted with its properties as the most powerful and valuable medicine for the cure of cancer, scrofula, and of venereal diseases, particularly

syphilis. In these affections it is used in strong decoction, the patient drinking from a pint to a quart in a day. In the case of ulcers, they are to be washed with it. It is highly recommended for the cure of cancer of the breast in females. For this purpose the decoction, in doses of a wineglassful, should be drunk three or four times a day. Also a poultice of the powdered root or leaves and equal parts of elm bark should be applied to the breast and often renewed. At each renewal of the poultice, the cancer should be well washed with the warm decoction. It is also useful for ulcers, wounds and inflammation that have a tendency to terminate in gangrene.

Description—It closely resembles the blue lobelia in all points but its flowers, which are large and of a pale-red color. It is found growing usually in low, flat woods and dry marshes.

RHUBARB (*Rheum*).

Part used—The root.

Its medicinal value can hardly be over-estimated. It is useful in dyspepsia, liver affections, piles, and in small doses is very valuable in diarrhea and dysentery. Being a mild cathartic, it is regarded as valuable for delicate persons. It is also somewhat astringent and tonic. Dose as a purgative, thirty to sixty grains, or from half to a teaspoonful. When given in five to ten-grain doses, two or three times a day, it acts as a tonic and mild laxative, and in doses of one to five grains, as a tonic only. The sirup or tincture, in doses of one to two teaspoonfuls, is laxative. There are several varieties of rhubarb imported from different parts of the world, but that from Turkey is regarded as the best.

RHEUMATIC WEED, Prince's Pine (*Chimaphila Umbellata*).

Parts used—Tops and roots.

A tea of this plant is a valuable medicine for rheumatism, dropsy, scrofula, diseases of the kidneys and cancer. Externally it is used for washing cancerous and scrofulous ulcers, and bathing rheumatic joints. It should be drunk before each meal and before retiring at night.

Description—The leaves are evergreen, long, wedge-shaped, smooth and shining. Flowers purple and white, or reddish-white, and growing at the top of the stem. It is found on dry, sandy land and in shady situations.

ROCK-BRAKE, Common Polypody, Rock Polypod, Fern-Root, Brake-Root, Female Fern, etc. (*Pteris Atropurpurae*).

This plant is recommended for dysentery, night-sweats and hemorrhage. It is used in the treatment of worms. The decoction should be taken three or four times a day. It forms a good local application for ulcerated sore mouth and throat and malignant ulcers. It is employed in the treatment of leucorrhea. It is a good remedy for lung-difficulties. It is said that cases of consumption have been cured with it.

ROSEWILLOW, Red Willow, Swamp Dogwood (*Cornus Sericea*).

Parts used—Bark of the root and stalk. It has some reputation in the Southern States as an anti-periodic.

This plant is a reliable remedy for relieving the vomiting of pregnancy. A decoction or tea may be drunk freely four or five times a day.

Description—It grows from five to ten feet high, having small flowers of a yellowish-white color, followed by small, blue berries and is found along the borders of streams and on moist lands.

ROUND-LEAVED PYROLA, Winter Green, Pear-Leaf, Canker-Lettuce (*Pyrola Rotundifolia.*)

Part used—The herb.

It is used in infusion both externally and internally in cancer, scrofula and leucorrhea. Internally, the decoction or an extract has been used with success in gravel, bleeding from the kidneys and ulceration of the bladder. Externally, the decoction will be found an excellent application in sore throat, ulcerations of the mouth, indolent ulcers, and forms a soothing poultice for boils and carbuncles. Dose of the decoction, one-half to a teacupful; of the extract, two to four grains.

Description—A shrubby evergreen.

RUE (*Ruta Graveolens*).

Part used—The leaves.

It has been used with success in wind-colic, epileptic fits and worms. When taken during pregnancy, it has produced deleterious effects, terminating in miscarriage and other dangerous symptoms.

Dose of the infusion, from two to four tablespoonfuls; of the powder, ten to twenty grains; of the oil, two to six drops. In large doses it is a narcotic poison.

It is cultivated in gardens.

RUSH (*Equisetum Hyemale*).

The ashes of the rush are reputed to be a good remedy for dyspepsia and sour stomach, taken in doses of five to ten grains twice a day. The infusion of the tops or stems is employed in diseases of the kidneys, dropsy and gravel. To be taken freely three times a day. It has recently been discovered that the tincture of the rush is one of the most important remedies known for incontinence of urine. Prof. Hale, of Chicago, reports various cases, three of which were in the same family, and promptly cured with it. It may be prepared by adding a handful of the herb to a pint of alcohol.

Description—This is the common, well-known scouring rush, growing in wet lands; from one to three feet high; pointed, hollow, rough, furrowed stems and without leaves.

SAFFRON (*Crocus Sativus*).

Part used—The flowers.

This is a very popular remedy for jaundice and red-gum in children and for female obstructions. It is a pleasant, agreeable, domestic remedy in the incipient state of scarlatina, measles, and chicken-pox. Given in decoctions it brings the eruption to the surface, thus mitigating the early symptoms and also foreshortening the period of incubation—and if care is used to prevent colds, etc., it is a cure for all that class of ailments. Dose of the infusion, from two tablespoonfuls to two-thirds of a teacupful (one to three fluid ounces); of the tincture or sirup, one to two teaspoonfuls, three times a day.

Found growing in gardens.

SAGE (*Salvia Officinalis*).

Part used—The leaves.

The infusion is much used for sore and ulcerated throats in the form of a gargle, either alone or with vinegar, honey and alum. The tea drunk freely is esteemed one of the best remedies for curing night-sweats. The infusion is reputed to possess the property of repressing the sexual appetite. It will generally cure quinsy by simmering a handful of it in lard and giving it in doses of two teaspoonfuls four or five times a day. Ground fine and mixed with

honey it is used with success in curing aphthous sore throat, sore mouth of infants—and any stage of raw inflammatory sore throat. Warm sage-tea is an excellent sweating-agent for fevers, coughs and colds.

SAGO (*Sagus*).

This is a very useful article of diet for sick, delicate and convalescent persons. It is also very valuable in bowel-complaints. Prepared by boiling thoroughly one or two tablespoonfuls in a pint of milk or water and sweetening with white sugar.

SWEET SUMACH (*Rhus Aromaticus*).

Part used—The bark of the root.

This is one of the most reliable medicines now in use for diabetes. It is excellent in bloody urine, diarrhea and dysentery. Dose of the fluid extract, from ten drops to a teaspoonful three times a day.

Description—It is a shrub growing from two to six feet high, inhabiting high, rocky soil; stems straight, branching near the top, flowers yellow, fruit clustered, red, seedy and acid. When the bush is fractured it emits a strong odor from whence it takes its common name. Parke, Davis & Co., of Detroit, now manufacture a fluid extract of this shrub, which physicians recommend. To be had at drug stores.

SARSAPARILLA (*Smilax Officinalis*).

Part used—The root.

This is an important remedy in syphilis, scrofula, skin diseases and rheumatism. It stands high as a blood purifier, but many regard the burdock or the yellow parilla equal to it. Dose of the decoction or sirup, half to a wineglassful three times a day.

It is found only in drug stores.

SANDAL WOOD (*Santalum Album*).

It is used with good effect in gonorrhea, remittent fever, leucorrhea and other diseases. Dose, of the fluid extract half a teaspoonful three times a day. It is a new remedy and has not been in use long, but the success that has been attained in its administration in the cure of diseases, especially gonorrhœa, will soon bring it prominently into use

SASSAFRAS (*Laurus Sassafras*).

Part used—The bark of the root.

The oil applied to any inflammation on the surface seldom fails to effect a cure, and given in doses of five to ten drops is efficacious in diseases of the kidneys and bladder. Given in painful menstruation, it soon relieves the sufferer. It is a sovereign remedy for toothache, applied to the gums and in the tooth by means of cotton or lint saturated with it. It is used with good effect in afterpains. The tea prepared from it is very pleasant and may be drunk freely several times a day. The oil, in which form it is commonly employed, may be given in doses of from ten to twenty drops twice a day. A poultice of the root is a good application to ill-conditioned ulcers. An infusion is good to cleanse the blood and may be used for this purpose as well as to flavor other drugs. The oil may be used as an ingredient in liniments and furnishes an excellent application for bruises and swellings.

Description—It is a well-known tree common to this country and sometimes growing from thirty to forty feet high.

SAW PALMETTO (*Sabal Serrulata*).

This is a valuable plant for the treatment of chronic bronchitis, whooping-cough, catarrh, colds, coughs and marasmus. Medical attention was called to it by its superior fat-producing properties in animals that feed upon its fruit. Dr. Reed noticing the very marked health of the animals that feed upon the berries that grow upon the sabal serrulata, concluded to try it as medicine, and the result was that he found the berries to improve the digestion, increase flesh, strength and weight. He used it in catarrh, ozœna and chronic bronchitis, with prompt success. Dose, from one-half to two fluid drachms.

It grows very plentifully on the coast of the Southern States and is found in drug stores.

SEA WRACK (*Fucus Vesiculosus*).

It is used by Spanish and French physicians as a remedy for goiter and scrofulous swellings. No derangement of the stomach or general system seems to result from its use. It has been highly recommended as an anti-fat remedy. Dose, half a teaspoonful, three times a day, and gradually increased to a tablespoonful, of the fluid extract; of the sugar-coated pills, two to five.

To be had at drug stores.

SCULL CAP, Blue Scull Cap, Hoodwort (*Scutellaria Lateriflora*).

Parts used—Leaves, stems and roots.

This plant is a prompt remedy in St. Vitus's dance, and is employed very successfully in nervous headache, neuralgia and nervous affections. It is especially valuable to relieve restlessness, wakefulness, convulsions, delirium tremens, and is useful in nervous and intermittent fevers. One ounce of the dry herb should be infused in a quart of water and drunk freely. It has been used with good effect in hydrophobia.

Description—Height, three to four feet; leaves small; with numerous branches, which are opposite; small, light-blue flowers. The roots are fibrous and of a yellowish color.

Found in meadows, moist lands and along water-courses.

SCAMMONY (*Convolvulus Scammonia*).

Part used—Gum-resin.

This is a very active cathartic, but should be combined with a small portion of ginger, or coriander-seed, to prevent its griping. It is beneficial in dropsical diseases and to relieve torpor of the liver. Dose, five to ten grains, two or three times a day. It should not be employed when the bowels or stomach are inflamed.

SEA-HOLLY (*Eryngium Maritimum*).

Part used—The root.

In the sections of country where this plant is well known it is regarded as a very valuable remedy for consumption. It is prepared for use as follows: Take one half-ounce of the root, pearl-barley half-ounce, licorice root three ounces, add one quart of water, reduce to one pint by gentle heat. Dose, a wineglassful, mixed with new milk, three times a day, to be taken before meals.

Description—Height, from one to two feet; leaves circular, plaited form, glossy like those of the common holly, of a pale-blue color; flowers blue and terminate the branches in rounded heads. It grows more commonly along the sea coast.

SENEKA SNAKE-ROOT (*Potygala Senega*).

Part used—The root.

On account of its expectorant properties, it is considered beneficial in asthma, coughs, diseases of the lungs, bronchitis, chronic

catarrh, pneumonia, croup, dropsy and rheumatism. It should never be used in active inflammation. Dose of the powder, from ten to twenty grains; of the infusion, from a half to a wineglassful; of the tincture, one to three teaspoonfuls.

Description—This is a small, crooked shrub or plant, twelve or fifteen inches high, bearing a few small, white blossoms.

SENNA (*Cassia Acutifolia*).

This is a mild but a very effective cathartic. Its tendency to produce griping and nausea are obviated when combined with ginger, cinnamon, cloves, sugar or manna. It should not be used in cases of inflammation of stomach or bowels, or in piles. It is used in combination with pink-root as an effectual vermifuge. Dose of the tincture, from one to two tablespoonfuls; of the powder, ten to twenty grains; of the infusion, from a half to a teacupful.

Found only in drug stores.

SHEEP-LAUREL, Narrow-Leaf Laurel (*Kalmia Angustifolia*).

Part used—The leaves.

Internally, a decoction or tincture is used with good effect in syphilitic diseases, hemorrhages, diarrhea, dysentery, fevers, diseases of the heart, neuralgia and jaundice. Dose of the decoction, a tablespoonful. Applied in the form of an ointment, the leaves have been efficient in scald-head and itch. This is a poison and must be used with care. When taken in large doses it produces dimness of sight, vertigo, cold extremities and sometimes death. This shrub is often mistaken for the Laurel or Calico Bush (*Kalmia Latifolia*), both of which are common to all parts of the United States.

SHEEP-SORREL (*Oxalis Stricta*).

Parts used—The leaves and stems.

This plant is mostly celebrated as a remedy for cancer. The juice of the green herb is to be expressed, then evaporated in the sun until it is the proper consistence to make a plaster, then applied and renewed once or twice a day. Numerous cases of cancer have been cured with it. The fresh leaves bruised and infused in cold water make a good cooling drink in fevers, and are valuable in scurvy; but on account of the oxalic acid it contains, it should not

be taken in too great a quantity. Sheep-sorrel has recently been discovered to be one of the most superior remedies for the cure of kidney-complaint.

Description—There are several varieties of sorrel, but this, the common variety, is generally well known, growing in the woods and shady places, from five to fifteen inches high; having light-green, round or head-shaped leaves, in "threes" at the ends of the branches, somewhat resembling the small-clover leaves. The flowers are small and yellow. The herb is quite juicy, and has a sour or acid taste.

SLIPPERY ELM (*Ulmus Fulva*).

Part used—The bark of the tree.

As an external application in the form of a poultice, slippery elm bark is an admirable remedy, excelling any other known production as a poultice for ulcers, tumors, wounds, burns, felons, skin diseases, sores, etc. It promptly allays inflammation and promotes resolution. An enema or injection of elm-bark infusion is excellent in bloody flux, piles and dysentery. A cold drink in the form of a mucilage, made by infusing a quantity of the bark in cold water, should be used in bronchitis, strangury, sore throat, inflammation of the bladder, diarrhea and bowel-complaints. Always use the fresh bark if it is at hand, bruising a handful and infusing it in two quarts of water over night. It is an agreeable emulsive drink in any disease. The powdered bark boiled in milk is a valuable diet for children in summer complaint.

SHEPHERD'S PURSE (*Bursa Pastoris*).

Part used—The whole plant.

It is employed in the treatment of diseases of the kidneys and bladder and as a tonic. Dose of the fluid extract, ten to fifteen drops, four times a day. The infusion may be drunk freely. This plant grows in all parts of the country.

SMART-WEED, Water Pepper (*Polygonum Punctatum*).

Parts used—Stems and leaves.

A cold infusion of the herb has been used with success in gravel, and affections of the kidneys and bladder; and a cold infusion made of this herb and wheat-bran is an excellent remedy for bowel-complaints. During the war of the rebellion when the northern soldiers were the suffering victims of chronic diarrhea the colored women cured many a case that hospital medication had

tried in vain, with a decoction of smart-weed and many a soldier to-day will testify how speedily and perfectly it was done. It is to be drunk freely. Smart-weed makes an excellent fomentation combined with hops, to be applied warm to the abdomen in inflammation of the bowels. A strong decoction is good to wash foul ulcers.

It will dissolve coagulated blood. If a fomentation of it be applied to a bruise, immediately after being received, it will prevent the parts from becoming discolored. It will also remove the soreness if frequently renewed. This herb is excellent for the purpose of opening the pores of the skin and producing free perspiration. Hence, it is useful in colds and some forms of fever. The strong tincture, taken in doses of one to two teaspoonfuls, three times a day, will relieve obstructed menstruation. When the tincture cannot be obtained, employ a strong infusion.

Description—Height from one to two feet, with reddish-brown-colored, jointed stems, lance-shaped leaves and small, purplish flowers.

It is found growing in yards, along roadsides, ditches, and on moist lands.

SNAKE-WEED (*Euphorbia Pilulifera*).

Part used—The herb.

A common roadside herb of Australia, regarded as an infallible remedy for coughs, colds, bronchial affections and all diseases of the respiratory tract, but more especially esteemed for the prompt and complete relief it is said to give to sufferers from asthma. Of an infusion prepared by diluting one fluid ounce of Parke, Davis & Co's., fluid extract, in fifteen ounces of water, take thirty drops for dose. May be had at drug stores.

SOURWOOD TREE (*Oxydendron Arborea*).

Part used—The leaves.

The leaves of the sorrel tree, which grows in the Middle and Southern States, contain free acid and are tonic and diuretic. Fluid extract of the leaves, in doses of half a teaspoonful to two teaspoonfuls, has been successfully used in the treatment of dropsy.

Procured at drug stores.

SOLOMON'S SEAL (*Convalaria Racemosa*).

Part used—The root.

A strong decoction given every two or three hours will cure erysipelas, if at the same time it be applied externally to the

affected parts. In poisoning from poison-vine a decoction if drunk freely will, it is said, very speedily effect a cure. It is a mucilaginous tonic and very healing and restorative. It is good in inflammation of the stomach and bowels, piles, chronic dysentery and affections of the lungs. It is generally used in decoction or infusion in doses of from one to two wineglassfuls three to five times a day.

Description—This is a common perennial plant and grows from one to three feet high, generally on rich banks, hillsides and on the borders of meadow-lands. Leaves oblong and pointed, from three to six inches long, small, greenish-white flowers, hanging under the leaves, followed by pale-red, white and purple-speckled berries.

SOOT (*Fuligo Ligni*).

Wood-soot is useful in acid conditions of the stomach, dyspepsia and colic. Dose of the tea, from one to three tablespoonfuls three times a day; of the powder, five to ten grains three times a day. The tea or decoction is employed as an injection to expel thread-worms. An ointment of soot is good in scald-head, burns, erysipelas and scrofulous sore eyes.

SPEARMINT (*Mentha Viridis*).

Parts used—The herb and oil.

The oil of this plant is unsurpassed, perhaps, for the cure of chronic diarrhea, for which purpose it is to be given in doses of two to three drops every three hours. It is seldom that more than two or three doses will have to be taken. It is very valuable to check vomiting and to remove sickness of the stomach. In disease of the kidneys, suppression and scalding urine, it is a very effective remedy. Dose of the infusion, a wineglassful three times a day.

Description—It resembles peppermint, usually growing in moist lands, from one to three feet high, having a strong, aromatic smell, more rank and less pleasant than that of peppermint.

SPIDER'S WEB (*Aranea Tela*).

The cobweb of the spider is said to be almost a specific for fever and ague. When rolled into an ordinary-sized pill, two or three will be generally sufficient to effect a cure, but more may be taken if necessary, and to be used every two or three hours. Some physicians give it in about five-grain doses. For consumption, where it has been used, it is said to have produced surprising effects. It is also very valuable in asthma. Applied externally, it

will check the bleeding of wounds. The brown or black spider produces for the purposes above indicated the best web, and it is usually found in cellars, dark out-houses and barns. It is recommended in wakefulness, spasms and nervous excitement, and generally produces the most delightful state of bodily and mental tranquility. It is given in doses of four and five grains, in the form of pills, three times a day.

SPIGNET, Spikenard, Wild Licorice (*Aralia Racemosa*).

Part used—The roots and berries.

They are popular remedies for coughs and also for female weakness, used in tea or sirup. The roots bruised and used in poultice are applied by the Indians to all kinds of wounds and ulcers. Made into a decoction, and adding sugar almost to a sirup, it is excellent for coughs, colds, asthma, bronchitis, etc.

Description—The roots of this plant are brown, tapering, several growing from one common head, about the size of the finger, one or more stems arising from the same root, from two to four feet high, reddish brown and somewhat branched. Flowers of a yellowish-white; berries resembling elder berries.

SPICE-WOOD, Wild Allspice, Spice-Bush, Fever Bush (*Benzoin Odoriferum*).

Parts used—Bark, twigs and berries.

A strong tincture of the ripe berries of spice wood will relieve flatulent colic, taken in teaspoonful doses. A tea made from the twigs is esteemed a good drink in intermittent fevers. It is also an efficacious remedy for worms. The berries boiled in milk have been found a salutary medicine in dysentery. It is regarded as a blood purifier and is drunk in spring and fall—at meals instead of tea or coffee. The oil from the berries is a fine stimulant for bruises, colic and rheumatism. The infusion is to be drunk freely.

Description—This plant has light green leaves, flowers early in the spring and in autumn, and has small, red berries when ripe. The whole shrub, including the leaves and berries, has an aromatic odor. It grows in moist and shady lands.

SPIRITS OF AMMONIA, Aqua Ammonia, Spirits of Hartshorn.

It is employed in whooping-cough, delirium tremens and in prostration from exhausting discharges, acid stomach, and sick headache caused by acid stomach, as a stimulant; and applied to the nos-

trils in fainting, headache, etc. It is also used by physicians to stimulate the heart's action when pulsation is very weak and losing force. The dose is from ten to twenty drops, largely diluted with water, which may be repeated as required. It should not be used internally, except when largely diluted with water, otherwise it will act as a corrosive poison. Vinegar or lemon juice is good to antidote the effects of an overdose. When ammonia is combined with sweet oil it makes a good liniment.

Squill (*Scilla*).

This plant is generally used for the relief of coughs, diseases of the lungs, asthma, bronchitis, dropsy, catarrh, croup and kidney disease. It is usually employed in the form of vinegar and sirup-of-squills. Dose of the powder, from one to two grains; of the sirup or vinegar, one to two teaspoonfuls. It is generally used in combination with other medicines. It should not be used when there is much excitement of the circulation, especially when it amounts to inflammation; nor should it be taken in large doses in any case, as it is an irritant poison.

Found only in drug stores.

STAFF-VINE Bitter-Sweet, Red-Root (*Celastrus Scandens*).

Part used—The root.

When made into ointment with lard or vaseline this is unsurpassed for dispersing painful tumors. As an application for ulcers and sores it scarcely has an equal. It is used in jaundice, obstructed menstruation, scrofula, venereal and cutaneous diseases. To make the ointment, add one-fourth pound of the bark of the root to a half pound of lard, simmer slowly over the fire for two or three hours; then strain for use. This will be found unsurpassed for swelled breasts and also for piles. Cancers of the breast have been cured by the application of the juice over the cancer and the green leaves over the breast. It is also good in fevers and dropsical swellings. For internal use, boil four ounces of the bark of the root in two quarts of water down to one quart, and take a wineglassful three times a day. This will be found highly valuable in liver-complaint and general weakness, and seldom excelled for scrofula.

Description—This is a woody vine, usually climbing trees to the height of thirty feet. The leaves are ovate and pointed, of a light-green hue; the berries hang in bunches and become red in the fall. It is found mostly on rich soil and on bottom lands.

There is another vine called "Bitter-Sweet," which is described under that head, and which is the "Bitter-Sweet" proper.

STILLINGIA, Queen's-Delight, Yaw-Root, Silver-Root (*Stillingia Sylvatica*).

Part used—The root.

It is exceedingly valuable in syphilis, bronchitis, clergyman's and ordinary sore throat, and tetter; being a good blood-purifier, is very useful in eruptive diseases of the skin. When compounded with burdock or yellow-dock, it is very superior for this purpose. This plant is one of the most powerful and valuable alteratives in use. It will generally remove all traces of the syphilitic disease from the system. The fresh root must be used. The remedy has lately fallen into disrepute because it was prepared from the dry root, which is useless. The iodide potassium is frequently combined with the stillingia in the treatment of syphilis. Some physicians regard the combination essential. Dose of the decoction or sirup, from half to a wine-glassful, three times a day; of the tincture, one teaspoonful.

Description—Height, from two to four feet; leaves alternate, oblong, of a silver color on the lower side; flowers are arranged on a spike, and of a yellow color. The stalk and leaves when bruised emit a milky juice, like the milk-weed. This plant grows principally in the pine-barrens of the Southern States.

STONE-ROOT, Richweed, Richleaf, Oxbalm, Heal-All Knot-Root (*Collinsonia Canadensis*).

The fluid extract, made from the root of this plant, is a specific in clergyman's sore throat. It should be given in doses of twenty drops; of the tincture the same, in simple sirup or honey, four or five times a day. It relieves the hoarseness in a few hours. It is a reliable cure in the early stages of piles, and will sometimes cure them in the advanced stages; make an ointment of the extract with vaseline, and apply three times a day, after thoroughly washing the parts with castile soapsuds. It is found very useful in chronic bronchitis. It is highly prized as an external application to sores, swellings and headache. Taken in tea for headache, colic, cramp, dropsy, indigestion, etc., internally; applied in poultice or the whole leaves, externally; used both fresh and dry.

Description—Stem erect, round, from twenty to thirty inches high, terminating in several branches at the top which produce the flowers and seeds. Leaves few, opposite, broad, large and thin. Flowers numerous, pale-yellow, possessed of a peculiar balsamic fragrance.

Collinsonin is the active, concentrated principle of stone-root. This article, though recently introduced, is receiving much attention as a remedy in valvular diseases of the heart. In functional diseases of this organ, where from organized exudations the valves are obstructed, this remedy has the specific power to break up that

organization and thereby remove the obstruction. The dose is one to two grains three times a day, or triturated in lactine, one to ten; dose of the trituration, ten to thirty grains three times a day.

STORAX (*Styrax Officinale*).

Part used—The concrete juice.

This medicine has been useful in chronic catarrh, bronchitis, asthma, coughs and chronic gonorrhea; to be taken in doses of from ten to twenty grains. An ointment made of it with equal parts of lard has proven effectual in scald-head and ringworms.

Found only in drug stores.

STRAMONIUM, Thorn-Apple, Jimson-Weed (*Datura Stramonium*).

Parts used—The leaves and seeds.

A poultice or fomentation of either the green or dry leaves is an admirable remedy for the cure of inflammation of the stomach or bowels. At the same time the patient should take a swallow of as hot water as he can drink, and he will seldom fail to obtain prompt relief. This plant is highly valuable in inflammation of the bladder, painful swellings and sores, swelled and painful breasts, and in rheumatism. An ointment prepared by stewing the leaves in fresh lard or vaseline will be found to be an admirable remedy in piles. The leaves and seeds have been especially beneficial in delirium tremens, epilepsy and mania. The leaves and seeds are highly poisonous when taken in large doses, and should not be taken in any case where there is determination of blood to the head. The tincture of the seeds is used in neuralgia and headache. The dose is from five to ten drops.

Description—Stramonium is a very rank and offensive common weed, growing three to four feet high, large, dark-green leaves, a long, whitish, trumpet-shaped blossom, and bears a large, thorny apple or pod, full of black seeds, when ripe.

STRAWBERRY (*Fragaria Vesca*).

Parts used—Leaves, root and berries.

A strong tea or decoction, made of the leaves or root, is an admirable remedy for diarrhea and all bowel complaints of children, used freely. A cordial or sirup made of them, in combination with cinnamon and the root of the strawberry, is a sovereign remedy for all diseases of the bowels. Both the berry and the herb are said to be good in gravel.

ST. JOHN'S WORT (*Hypericum Perforatum*).

Parts used—Leaves and flowers.

This plant is employed in the treatment of dysentery, diarrhea, bleeding of the lungs, worms, jaundice, suppressed urine and nervous irritability. Applied externally as a fomentation or ointment it will relieve swelled breasts and other hard tumors. Dose of the infusion, from two to four tablespoonfuls, three or four times a day. Many cases of chronic bronchitis have been cured by the use of this plant. It is employed in the treatment of kidney-disease, and externally in sprains.

Description—Height, from one to two feet, with numerous green leaves, dotted with small, transparent spots and bright-yellow blossoms. The leaves, when rubbed, emit a strong, peculiar, balsamic odor. It grows in abundance in old fields and open lands.

STRIPED ALDER, Tobacco Weed.

Part used—The leaves.

A tea of the leaves relieves vomiting, under all circumstances. Half an ounce makes a quart, steeped five or ten minutes. Dose, a wineglassful once in twenty minutes; the same in any internal inflammation; four times a day in pulmonary affections or internal ulcers. Swelled breasts of women are relieved and cured sometimes in twenty-four hours, by applying an ointment made of: the leaves, two ounces; bitter-sweet root, one ounce; spirits, one gill; lard, four ounces; boil; then soak a necessary quantity of the leaves in hot water sufficient to soften them, and apply to the breast; a little elm-flour may be added to form a poultice. In all cases of inflammation of the stomach, lungs, spleen, liver, intestines, bladder, kidneys and uterus they are invaluable; apply the leaves hot and change them every three or six hours, according to the violence of the case, and take the tea internally as above directed.

Description—This plant grows on hillsides, and in thick shaded woods where there is running water below, to a height of twenty feet, branches at the top, leaves few and in pairs, one to two inches wide to six or eight long, soft, smooth, and pale-green, with a strong odor, like Hyson tea. Bark greenish and striped.

SULPHATE OF NICKEL (*Niccoli Sulphas*).

This is a new remedy, almost a specific for periodical headaches, and very useful in neuralgia. Prof. Goss, of Marietta, Ga., in his new "Materia-Medica," says: "I have used it in several very old cases of neuralgia, and have been utterly astonished to see how readily it relieves that most excruciating malady. It is particularly

adapted to it when it is of a periodical character. I have not been better pleased with any new remedy that has been introduced to the profession." The dose is from one-fourth to one-half a grain. It is frequently given in doses of one-eighth to one-fourth of a grain, once or twice a day, or even three or four times a day, if required.

Found only in drug stores.

SULPHUR.

Sulphur is a sure cure for many forms of skin disease, especially the itch. Sulphur and cream of tartar, in equal parts, mixed together, is a very common and effective remedy for tetter of the head. Taken internally in teaspoonful doses it makes an agreeable aperient, and is largely used in measles, scarlatina and chicken-pox.

SUMACH (*Rhus Glabrum*).

Parts used—The bark, leaves and berries.

A gargle of the berries will cure putrid sore throat; it is likewise efficacious in quinsy. A decoction made of equal parts of this plant and white oak bark is a prompt and effective agent in the treatment of leucorrhea and falling of the womb, used by enema or injection. The bark of the root is a valuable specific for the cure of mercurial salivation. It is likewise employed in the treatment of night-sweats, diarrhea, kidney derangements and dysentery. Dose of the infusion or decoction, from two tablespoonfuls to a teacupful several times a day.

Description—Height, five to ten feet; blossoms of a greenish-red color, on spikes, followed by long bunches of hard, red down-covered berries, acrid and pleasant to the taste. There are other varieties of sumach, some of which are said to be poisonous. But this, the *Rhus Glabrum*, may easily be distinguished by the color and acidity of the berries and their appearance in cone-shaped bunches. When the green leaves or limbs are broken or cut, a milky juice exudes.

SUMMER SAVORY (*Satureja Hortensis*).

Part used—The plant.

It is employed in the treatment of colds, wind-colic and female obstructions, for which purposes the warm tea is used freely three or four times a day.

Found commonly growing in gardens.

SUNDEW (*Drosera Rotundifolia*).

Part used—The whole plant.

This plant is a very valuable remedy in chronic bronchitis and catarrh, attended with dryness of the mucous membranes and irritable states of the nervous system. It is excellent in the early stages of consumption, when attended with a harrassing cough without expectoration. It is very useful in the coughs accompanying measles, and in dyspepsia and asthma. Dose of the fluid extract, three to five drops every two or three hours; of the saturated tincture, five to ten drops.

Found in drug stores.

SUNFLOWER (*Helianthus Annuus*).

Part used—The seeds.

They are very beneficial in coughs, the early stages of consumption and in disease of the kidneys. They are also used with success in bronchitis and clergyman's sore throat. In the first stages of inflammatory sore-eyes an infusion of the pith of the stalk used as a wash will often act effectively. It may be prepared in sirup or infusion and taken, of the sirup, in tablespoonful doses, every one, two or three hours; of the infusion or tea, one-fourth to one-half teacupful every two or three hours.

Found growing commonly in gardens.

SWAMP CABBAGE, Meadow Cabbage, Skunk Cabbage (*Ictodes Fœtidus*).

Parts used—The root and seeds.

This plant has been found useful in asthma, coughs, epileptic fits, whooping-cough and chronic catarrh. It is also employed in the treatment of bronchial affections and diseases of the lungs. Dose of the infusion, from two to four tablespoonfuls, three times a day; of the powdered root or seeds, ten to thirty grains; of the tincture, from one to three teaspoonfuls, repeated according to the urgency of the symptoms.

Description—It is an offensively smelling herb with large leaves, without any stalk, resembling somewhat a large cabbage-head. The root is large and soft. It is found in wet lands and moist situations.

SWEET FERN, Sweet Bush, Ferngale, Sweet Ferry Spleenwort Bush (*Comptonia Asplenifolia*).

Parts used—The leaves and branches.

This is a prompt and efficacious remedy for expelling the tape-

worm. A pint of the decoction is to be taken in frequent doses during the day, for four or five days, when it is followed by a cathartic. Sweet fern is much used in diarrhea and all bowel diseases in children. It makes a very grateful, pleasant tea, with the addition of cream and sugar. It is also used in asthma, fevers, inflammations and rheumatism, and often as a fomentation. It is said that a strong tea freely drunk, and the leaves put in a cushion to sit on and between the sheets to lie on, has cured the St. Vitus's dance.

Description—The sweet fern is a small, shrubby bush, very much branched, growing from three to four feet high, having leaves from three to five inches long and half an inch broad, each side jagged, bearing some resemblance to the common ferns. Flowers appear before the leaves by a kind of round burr containing the seeds. Of native growth and found in mountains and sandy plains.

SWEET GUM (*Liquidambar Styraciflua*).

Part used—The inner bark of the tree.

It is an excellent remedy for bloody flux, dysentery and all bowel-complaints of children. Dose of the decoction, from one-fourth to a teacupful. It may be taken freely. It is regarded by physicians who have used it as a good remedy in chronic catarrh. When this tree is wounded a balsamic juice exudes, about the consistence of thin sirup, which finally hardens. This, melted with equal parts of tallow or lard, makes an admirable ointment for various skin-diseases, such as itch, ringworms, etc. It is also good for fever sores and piles.

Description—It is of various sizes, from that of a shrub, even to a large tree. The bark is of a gray color and rough, and bears some resemblance to the red elm.

TAG ALDER (*Alnus Serrulata*).

Parts used—The leaves, twigs and cones.

The herb is used with good success in swellings, sprains and eruptions of the skin. It is prepared by bruising the leaves and applying them as a poultice. Boil the cones and twigs in water and add lard or butter. This makes an excellent ointment for burns and scalds. Great relief is afforded to hot swellings by keeping the parts constantly wet by means of cloths wrung out of a decoction of it. The timely application of a tea of the leaves or boughs will scatter boils. It is likewise very valuable in all diseases of the skin and should be drunk freely several times a day.

Description—Height, six to eight feet; usually many shrubs grow from the same root; leaves large and green, with cones or tags resembling "witch-hazel." It is usually found in wet lands and along streams.

TAMARACK, American Larch, Black Larch (*Larix Americana*).

Part used—The bark.

It is useful in jaundice, diarrhea, rheumatism, liver-complaint, and in cough-preparations. The tamarack sweat is regarded as of great efficacy in the early stages of colds, catarrhs, asthma, etc. The decoction or bitters made of it may be taken freely. It is a species of the pine.

The bark can be procured at drug stores.

TANNIN, Tannic Acid (*Acidum Tannicum*).

This is one of the most powerful astringents and in its administration care must be exercised to avoid an over-dose, as it will produce obstinate constipation. It is efficacious in dysentery, diarrhea and hemorrhages and as an astringent enema in gonorrhea, gleet and leucorrhea, and forms an excellent gargle in sore throat. Rubbed up with lard or vaseline it makes an invaluable ointment for excoriations of the skin. Dose, from half a grain to a grain. For a gargle, dissolve six grains in two tablespoonfuls of water. For an ointment, mix ten grains with a tablespoonful of lard or glycerine. It should not be used internally when the patient is troubled with constipation, nor during the presence of active inflammation.

Procured at drug stores.

TANSY (*Tanacetum Vulgare*).

Part used—The tops.

A fomentation of tansy applied to the bowels is very effective in case of painful menstruation. A warm tea of it used at the same time produces perspiration and aids materially in promoting menses. It is also very usefui when applied to painful swellings, inflammations and sprains. For restorative and strengthening purposes, it is used in the form of bitters. A cold infusion of tansy is tonic and has been used in some forms of dyspepsia. Dose, from two tablespoonfuls to two wineglassfuls twice a day.

Oil of Tansy—This oil is a very active emmenagogue, and should not be taken by pregnant women, as it is regarded as dangerous and should be used with great discretion even by physicians. It is used as a worm-medicine. Dose, from two to five drops.

Cultivated in gardens; the oil found at drug stores.

TAR WEED, Gum Weed (*Grindelia Squarrosa*).

This is an excellent and effective remedy, in malarial diseases and enlarged spleen. Dose of the fluid extract, fifteen to thirty

drops. This is a new remedy, from California, for chills and fever. It is said to surpass anything yet employed in chronic cases of this disease.

In reference to it, Prof. Goss, of Marietta, Ga., says the controlling effects of the grindelia squarrosa, over the spleen and other lymphatic glands, render it *the* remedy in all old, chronic cases of ague. He finds nothing so prompt, to check relapsing chills, as this remedy. There is no remedy that acts more kindly upon the liver than grindelia squarrosa. In eruptive diseases, such as scarlet-fever, measles, small-pox, it has been found a remedy of great value.

Description—This plant is sometimes called gum-weed or tar-weed. It grows from two to three feet high; produces many stems from one common root, with a bunchy top; leaves about two inches in length, and of a bright green; stems whitish, bearing many leaves; flowers small and chrome yellow; buds resembling the burdock. This plant bears some resemblance to the wild sunflower; but the former is gummy, while the latter is not.

TAR WEED—Grindelia Robusta.

Since this plant was first introduced it has earned for itself the reputation of being almost a specific in asthma. Dose, from one-half to one teaspoonful of the fluid extract, repeated every three or four hours as required. Attention to the medical qualities of this agent was first directed by Dr. Gibbons, of San Francisco, since which time it has rapidly grown in favor with the profession, and is extensively prescribed for its anti-spasmodic properties.

Dr. Cleland, of Kewanna, Ind., says it is the best remedy he ever used in catarrh or chronic bronchitis. The U. S. Dispensatory, 15th vol., says its chief use is in asthma and bronchitis; it is especially valuable in the latter complaints when there is tendency to spasm. It has been employed with success in whooping cough. As a local application it has been found useful applied to burns.

Description—This is another species of the tar-weed, and the same description applies to this species as to the squarrosa, with the following slight variations: The stem of the former is brown and has fewer leaves, which are somewhat narrower than those of the latter, while the flowers are of an orange-color.

THYME (*Thymus Vulgaris.*)

Part Used—The leaves.

These should be taken freely in the form of a warm infusion for colic, colds and headache. A cold infusion should be employed as a tonic for weak stomach, dyspepsia, and in recovery from exhausting diseases or to produce sweating, used freely four or five times a day.

The Oil of Thyme—Is a good external application for tooth-ache, neuralgia and painful swellings. It may be employed internally in doses of two to ten drops.

This is the common garden-thyme.

TOBACCO (*Nicotiana Tabacum*).

Tobacco applied in the form of a poultice is one of our best remedies in extreme cases of lock-jaw; it should be removed as soon as the patient becomes relaxed. It is likewise very good in colic. Obstinate cases of constipation have been promptly removed by a poultice of tobacco-infusion. It is often employed in the form of an ointment in croup, piles, obstinate ulcers and painful tumors. Tobacco-smoke is often employed in earache.

TOMATO (*Lycopersicum Esculentum*).

Part employed—The ripe fruit.

This vegetable is found in every kitchen garden. Fluid extract of the ripe fruit, in doses of half a teaspoonful to a teaspoonful is said to exert special curative action over ulcerative affections of the mucous lining of the mouth and other cavities, nurse's sore mouth, canker, etc.

May be had prepared at drug stores.

TOUCH-ME-NOT, Celandine (*Impatiens Pallida*).

Part used—The herb.

The tea of this plant is highly esteemed as a remedy for the treatment of jaundice. Its juice is beneficial for removing ringworm, salt-rheum and warts, or it may be applied in poultice, boiled in milk. The decoction is useful in dropsy, taken freely several times during the day.

Description—The stalk is of a watery appearance and full of juice. The flowers are hood-shaped, of a light-yellow color, with spots of dark orange, followed by a sort of pods, which if squeezed a little will fly to pieces.

TRAILING ARBUTUS, Mountain-Pink, Gravel-Weed (*Epigæa Repens*).

Part used—The herb.

It has been successfully used in gravel and other diseases of

the urinary organs, and in diarrhea and bowel-complaints of children. This is a woody plant, and common to almost all parts of the United States. The infusion of the leaves may be drunk freely.

TURKEY-CORN, Wild Turkey Pea (*Corydalis Formosa*).

Part used—The root.

Prof. Payne, of Philadelphia, says, "There is no fact better established than that this medicine, judiciously administered, has the power to remove syphilis from the system." The tincture should be prepared from the fresh herb and given in doses of twenty to thirty drops, three or four times a day. It is also an excellent remedy for scrofula; dose of the infusion, one to two wineglassfuls, three times a day; of the powder, five to ten grains.

Description—This plant grows from six to twelve inches high, in rich, loose soil, flowering early in the Spring. It has a small, tender stalk, and small, fine leaves of a bluish-green color; round, bulbous root, about the size of a large pea; from two to four of these peas to a stalk, attached to small roots; are rather hard, of a yellowish color and quite bitter. It bears small, reddish-purple flowers. The time to gather it is in March or April.

TREE OF HEAVEN (*Ailanthus Glandulosa*).

This remedy has been found useful in epilepsy, palpitation of the heart, asthma, hysterics, hiccough and dysentery. Dose, from ten to thirty drops of the fluid extract; of the decoction, made by boiling one ounce of the root in a pint of water, one tablespoonful three to five times a day.

TURPENTINE, Oil of Turpentine, Spirits of Turpentine (*Oleum Terebinthinæ*).

When this is combined with castor-oil it forms a good remedy for worms. Externally it enters into several lotions, preparations for rheumatism, tumors, chilblains, indolent ulcers, and in burns and scalds, combined with linseed oil. For ordinary sore throat and colds, five drops on a little sugar, swallowed slowly and repeated once or twice a day, is said to be almost a certain cure. In dysentery and flux, mixed with sugar in ten-drop doses, repeated every four hours, it is an effectual remedy in many cases. For gonorrhea, gleet and leucorrhea, turpentine is often employed. In these cases add one teaspoonful to two tablespoonfuls of a mucilage of gum-Arabic and of this give a teaspoonful every three hours. In stoppage of the urine, it will gen-

erally give speedy relief. To four tablespoonfuls add the same amount of vinegar and the yolk of one egg. This makes a good liniment for sprains, bruises and rheumatism, far more effective than many of the patent liniments sold at high prices. It is employed in bronchitis and the diarrhea attending typhoid fever. In doses of ten to twenty drops, repeated every three or four hours. it has proved efficacious in bleeding from the lungs, nose, stomach and bowels. Turpentine should never be given in large doses, as it is liable to affect the brain, injure the kidneys or produce strangury.

TWIN-LEAF (*Jeffersonia Diphylla*).

Part used—The root.

It has been used with good success in cramps, chronic rheumatism and dropsy. Externally it is used in sore eyes; also as a gargle for ulcerated sore throat and scarlet fever. Dose of the decoction, one to two wineglassfuls; of the tincture, two to four teaspoonfuls three times a day.

Description—It has many leaves which grow on long footstalks. The flower-stem produces one single white flower.

UNICORN-ROOT, Star-Grass, Crow-Corn, Ague-Root (*Aletris Farinosa*).

Part used—The root.

This has proved very efficacious in dyspepsia and flatulent colic, and is especially useful for the purpose of restoring the activity of the generative organs, giving them tone, vigor and healthy action. It is a most valuable agent to prevent the tendency to miscarriage; and for falling of the womb it has few equals. Dose of the tincture, six to ten drops, three a day; of the powdered root, five to eight grains. It has lately been used with good success in diabetes—excessive flow of urine—in which case it should be combined with alum. It is also very efficient in green-sickness and painful menstruation. Unicorn-root combined with black-haw, in equal proportions, made into a decoction, is a remedy of unsurpassed value in cases of threatened abortion. Dose, a tablespoonful three times a day; in urgent cases, every hour or two; of the fluid extract, half a teaspoonful every two hours.

Description—Height, from a foot to eighteen inches; leaves pale, smooth and evergreen; bears white flowers; root small and irregular, from one to two inches long, of a dirty, dark color, very hard, full of little pits, rough and wrinkled. It grows in most parts of the country, in dry, sandy soils and barrens.

URTICA DIOICA.

In diseases of the kidneys this new remedy has proved a good one. It is advantageously employed in diarrhea, dysentery, piles, various hemorrhages, in scurvy and febrile affections. Dose of the fluid extract, ten to twenty drops three or four times a day.

UVA URSI, Arbutus Uva-Ursi, Bear-Berry, Upland Cranberry (*Arctostaphylos Glauca*).

This is a very serviceable remedy in chronic inflammation of the bladder and in chronic diarrhea and dysentery. It has been employed with good effect in gleet, gonorrhea, leucorrhea, chronic kidney troubles, catarrh of the bladder and gravel. The decoction is made by boiling for a few minutes one ounce of the leaves in one quart of water. Dose, half a teacupful three or four times a day; of the powder, ten to fifty grains.

Description—It is a perennial, evergreen shrub, growing in dry, upland northern regions of America and may be found in drug stores.

VALERIAN (*Valeriana Officinalis*).

Part used—The root.

It is employed in epileptic fits, St. Vitus's dance, nervous derangement, especially for nervous females, restlessness and in wakefulness during fevers. Dose of the tincture, one to two teaspoonfuls three times a day; of the infusion, a wineglassful; of the extract, three to six grains; and of the oil, five drops.

Found only in drug stores.

VENICE-TURPENTINE.

This is a thick liquid, which exudes from the trunk of the abies larix, a European tree. It possesses medicinal properties similar to the oil of turpentine and the turpentines generally.

VANILLA (*Vanilla Aromatica*).

Part used—The bean.

This is used in low grades of fevers and hysterics. It is an excitant of the generative organs, increasing sexual desire. It may be used in an infusion, one-half of the powdered bean to one pint of boiling water, in doses of two or three teaspoonfuls three times a day.

Found only at drug stores.

VELVET-LEAF (*Pareira Brava*).

Part used—The root.

It is employed in gravel, dropsy, chronic inflammation of the kidneys and urinary organs. Dose of the infusion from one-fourth to one-half a teacupful, three times a day; of the fluid extract, one to two teaspoonfuls.

Found only in drug stores.

VIOLET, Blue Violet, Bird's-Foot Violet (*Viola Pedata*).

Part used—The whole plant.

It is used in coughs, consumption, disease of the kidneys and syphilis. It is mucilaginous, alterative and slightly laxative. In urinary affections, when a mucilaginous diuretic is needed, it is a very useful plant. It may be used in the form of a sirup made from the herb or root.

Description—This plant has no stalk, is small, leaves nearly round, on slender stems from two to three inches long; flowers appear in May and are deep blue or purple.

VERVAIN, Vervine, Wild Hyssop (*Verbena Hastata*).

Parts used—The leaves and stems.

This is regarded as one of the safest and best remedies known for suppressed or checked menses. Dose of the decoction, half to two-thirds of a teacupful, three or four times a day. The decoction is a very valuable tonic and restorative medicine in lung-disease, fever and ague, loss of appetite and in convalescence from acute diseases. It is now accounted good in gravel and scrofula. Dose of the infusion, one to two wineglassfuls three times a day. The warm infusion, in large doses, is an emetic.

Description—Height, three to four feet; has a sort of four-square stalk, branching limbs, whitish flowers, followed by long slim tassels of seeds. It grows usually in dry, hard soils, along roadsides and in fields.

VIRGINIA SNAKEROOT (*Aristolochia Serpentaria*).

Part used—The root.

As a nerve-stimulant it acts very promptly and is much used in depressed or exhausted conditions of the nervous system, especially in typhoid, typhus, marsh and child-bed fevers. It is applicable in the latter stages of diphtheria, small pox, scarlet fever and

pneumonia. It supports the sinking vital forces and rids the system of any offending matter by producing perspiration and a determination of blood to the surface. A cold infusion is often employed with good effect in dyspepsia, croup, throat and kidney complaints. A cold infusion is used for strengthening purposes and it may be drunk freely. Dose of the tincture, from a half to a teaspoonful three times a day.

Description—Height one to two feet, stalk slender and jointed, of a dark-reddish color, toward the ground; leaves oblong and about three inches long and one wide; flowers of a dull-brown color attached to short stems which proceed from the root, so that they usually lie close to the ground. The root is fibrous and of a dark-brown color. It may easily be known by its gingery aromatic smell, and is found in timber and shady lands.

WATER-ASH, Ptelia, Swamp Dogwood (*Ptelea Trifoliata*).

Part used—The bark of the root.

This is an excellent remedy in chills and fever. It is also regarded as a good remedy in asthma when tinctured in whisky and taken in doses of one to two teaspoonfuls every two or three hours. Dose of the powder, from twenty to thirty grains three to six times a day; of the tincture, one to two teaspoonfuls.

Description—Ptelea is a shrub growing from five to ten feet high. It produces a peculiar-shaped seed about the size and shape of a wafer, with a sort of winged edge all around it.

WATER-FENNEL SEED (*Œnanthe Phellandrium*).

This drug is of value in chronic affections of the air-passages, as asthma, inflammation of the larynx, bleeding from the lungs, catarrh, and in periodical febrile diseases, dyspeptic affections and indolent ulcerations. It is highly recommended by some physicians in consumption and bronchitis and to quiet troublesome cough and render expectoration smaller and easier and produce sleep at night. Dose of the fluid extract, from eight to twelve drops three or four times a day.

Procured only at drug stores.

WATERMELON (*Cucurbita Citrullus*).

Part used—The seeds.

An infusion of watermelon-seed is very valuable in inflammation of the stomach and bowels, strangury, burning urine and gonorrhea. May be used freely.

WATER PLANTAIN (*Plantago Cordata*).

Part used—The root.

This is a good astringent, and is a very beneficial remedy in cholera, diarrhea, dysentery and all forms of bowel-complaints. A poultice of the root is a very serviceable remedy for ulcers and sores. The decoction may be used freely four or five times a day.

Description—The leaves of this plant are from six to seven inches long, broad and smooth; flowers small, whitish, and attached to spikes six or eight inches long. It is usually found on wet lands and on the borders of streams.

WHITE WEED (*Chrysanthemum Leucathemum*).

Part used—The whole plant.

The cold decoction is good in asthma, night-sweats, whooping-cough, nervousness, and externally and internally in leucorrhea. Dose, half to a teacupful three times a day. The decoction is applied locally to scald-head, ulcers and wounds.

This is a common plant, found everywhere.

WHITE COHOSH (*Actæa Alba*).

Part used—The root.

It is said to be a specific in controlling after-pains, and that for this purpose there is probably no remedy known that surpasses it. It is also found useful in neuralgia of the womb and painful menstruation, and also in leucorrhea from congestion of the womb. A strong tincture may be made by adding eight ounces of the root to one pint of alcohol (96°). Dose, fifteen drops, three times a day.

WHITE POND-LILY (*Nymphæ Odorata*).

Part used—The root.

The white pond-lily is efficaciously used in dysentery and diarrhea. Externally, it is employed with good effect as a poultice for boils, ulcers and tumors. The juice of the fresh root, mixed with lemon-juice, is excellent for removing freckles, pimples and blotches from the face. The infusion is a good remedy for the cure of sore and ulcerated mouth, used in the form of a gargle. It is used in scrofula, diseases of the lungs and leucorrhea. For this latter affection it should be employed internally and by injection. There are few remedies that act more promptly than this in those old cases of leucorrhea, where there is chronic inflammation of the womb or abrasion of the vagina; and for ulceration of the womb

it has proved efficacious, having completely cured the disease after all other available means had failed. It should be used locally, by injections of the infusion to the neck of the womb, and by taking it internally. Dose of the infusion or decoction, from one-half to a teacupful two or three times a day; of the fluid extract, ten to fifteen drops, morning and evening.

Description—This article grows in ponds, with large, round, dark-green leaves, floating on the water, and large white flowers.

WHITE SNAKE-ROOT (*Eupatorium Aromaticum*).

Part used—The root.

This plant is employed with good effect in pleurisy, gravel and lung-fever. It is used in typhoid and nervous fevers in cases where it is difficult to obtain sleep. The decoction or tea may be used freely. It is often employed in combination with other sweating-agents.

Description—Height from one to two feet, rough stalk, branched top; leaves smooth, three or four inches long; flowers white. The root consists of a bunch of fibrous roots, of bitterish taste and aromatic smell.

WHITE-OAK (*Quercus Alba*).

Parts used—The bark and nuts.

A poultice of the bruised or powdered bark is a valuable application to check a tendency to gangrene and mortification. It is very serviceable in diarrhea, dysentery, hemorrhages and night-sweats. It makes an excellent gargle in sore-throat and for falling of the palate. It has been used very successfully as an enema in falling of the womb, leucorrhea and piles. Dose of the decoction, from a fourth to half a teacupful four or five times a day. In sickly children and weakly persons, especially when the result of fever, and also in diarrhea, a weak decoction employed internally will be found of value and will produce the very best results.

WHITE-ASH, Old Man's Beard, Fringe-Tree (*Chionanthus Virginica*).

Part used—The bark of the root.

It acts promptly in torpidity of the liver, and is a good tonic for dyspepsia and general debility. It is highly praised for congestion of the womb; the unicorn-root is frequently combined with it for this purpose. Dose of the saturated tincture, thirty to sixty drops three times a day. This tincture may be procured at the drug stores. Bitters made by steeping it in spirits, taken two

or three times a day, has proved promptly successful in the cure of inflammatory rheumatism. Dr. J. A. Henning says that in functional jaundice it is nearly a specific, given in doses of the fluid extract of from fifteen to twenty drops every three to six hours, as may be indicated in the case.

Description—It attains a height of eight or ten feet. Its flowers grow in clusters, petals long and snow-white, like fringe. Hence it is called the fringe-tree. It grows in sandy soils, principally in the Southern States.

WHITE VERVAIN (*Verbena Urticifolia*).

Part used—The root.

Dr. E. G. Day, of Grand Tower, Ill., writes in regard to it as follows: "The roots of this plant have been successfully used in the form of a decoction for the cure of intermittent and remittent fever. Its employment for a week in a case of intermittent fever was not only successful, but cured the individual of the opium habit of four years duration." Dose of fluid extract of the root, thirty to forty drops.

The nettle-leaved vervain is found in most parts of the United States and Canada.

WILD GINGER, Colt's Foot, Heart Snakeroot (*Asarum Canadensis*).

Part used—The root.

This may be used to promote perspiration, in all cases of colds, female obstructions, whooping-cough and fevers. It is made in a tea and administered in small doses frequently repeated, as large doses are apt to nauseate the stomach. The best preparation is a cordial made with the tincture and sirup or molasses.

Description—The root of this plant is round, fleshy, jointed, fibres brown; leaves round, hairy, supported on long footstalks, somewhat resembling a colt's hoof, two from a root. Only one flower growing from the root between the two foot-stalks which support the leaves, of a dark purple, and growing close to the ground. It is found usually in moist soils and shady forests.

WHORTLEBERRY, Huckleberry (*Vaccinium Frondosum*).

This fruit is very useful, eaten with milk or sugar, in scurvy or dysentery. The berries and root, bruised and steeped in water, have proved beneficial in dropsy and gravel. A decoction of the leaves or bark of the root is used in diarrhea, or as a local application to ulcers, sore mouth and throat.

Description—It is a shrub, growing four or five feet high, bearing a rich, luscious and nearly black berry. It grows in low, moist lands and waste places.

WILD CHERRY *(Prunus Virgina)*.

Parts used—The bark of the tree and of the root.

It is generally employed in combination with other medicines. It is an excellent bitter-tonic, and very extensively used as a restorative bitters, and is valuable for disease of the lungs, coughs and particularly in jaundice. It is an astringent often employed in bowel-diseases. It should not be boiled, as this process, to a great extent, destroys its virtues. It is also used in scrofula and hectic fever. Dose of the infusion from two tablespoonfuls to a wineglassful, three times a day; the same of the bitters; of the fluid extract, from one-half to two teaspoonfuls.

WILD CARROT *(Daucus Carota)*.

Parts used—The root and seeds.

They have been employed with success in kidney diseases, dropsy, inflammation of the bladder and in gravel. The seeds are the best; they should be bruised and steeped, care being taken not to boil them, as it will destroy their virtue. Dose, half to two-thirds of a teacupful three times a day.

Description—It resembles the garden-carrot; grows from two to three feet high, in waste places and along roadsides. The root has a sweetish taste and is more slender than the cultivated species. The seeds are of a dull brown color, flat on one side and convex on the other.

WILD POTATO, Bird-weed, Man-in-the-Ground

(Convolvus Panduratus).

Part used—The root.

Equal parts of the root and skunk-cabbage, made into a sirup, are very effectively used in consumption, coughs and asthma. The decoction of it is used in gravel and dropsy. The extract is a valuable cathartic. Dose of the infusion, about a wineglassful every three hours; of the tincture, two teaspoonfuls.

Description—This is a climbing vine, of a purplish color and from four to ten feet long. The leaves are heart-shaped at the base, deep green on the upper and pale on the under sides; flowers resemble the morning-glory; grows in loose, sandy or poor soil.

WILD INDIGO, Indigo-Broom, Indigo-Weed, Prairie-Indigo, Rattle-Bush (*Baptisia Tinctoria*).

Parts used—The top and bark of the root.

An ointment made of the bark of the root with lard or cream, is one of the most powerful preventives of mortification known. It is valuable in ulcers of all descriptions, either applied in ointment, poultice, or used as a wash. It has been used with success in scarlet and typhus fevers and is one of the most valuable remedies known for the cure of typhoid fever. Dose of the decoction, a tablespoonful every two to four hours. If it purge or produce any disagreeable or unnatural condition of the system, omit its use for a time, or lessen the dose. A fomentation of the leaves will disperse tumors of the breast. In putrid sore throat, a gargle composed of a strong infusion is generally very prompt in arresting the disease. In threatened gangrene or mortification, in cuts or wounds, this medicine should be given internally at the same time of its external application, and it will always give prompt relief. Dose of the fluid extract, from twenty to thirty drops every three hours; of the saturated tincture, thirty to sixty drops to a teaspoonful.

Description—This shrub grows mostly on hilly land and poor soil, from two to three feet in height; is of a yellowish green with black spots. The flowers are golden and succeeded by an oblong pod of a dark hue; leaves small, somewhat heart-shaped, and broadest toward the outer end.

WILD YAM, Colic Root (*Dioscorea Villosa*).

Part used—The root.

An infusion of the root of this herb is almost a sure cure in bilious colic, promptly affording relief. Dose, half a teacupful of the decoction every half hour. It is very valuable to allay nausea. Give four to six tablespoonfuls about every half hour until relief is afforded; of the tincture, half to a teaspoonful. It is also used with good effect in spasms and dyspepsia. It is one of the best remedies for the different forms of colic. It should be given in doses of one or two wineglassfuls every half hour or hour, until relief is obtained. Dose of the tincture, half to a teaspoonful.

Description—It is a sort of climbing vine, bearing small yellowish-green flowers.

WILD HOARHOUND (*Eupatorium Teucrifolium*).

Part used—The leaves.

This plant has obtained a high reputation as a remedy for fevers. It is a valuable tonic, much used by the planters along the sea-

board, and considered preferable to Peruvian bark. One ounce of the dried leaves infused in a quart of water may be taken daily in doses of half a teacupful every two hours.

Description—This is an annual plant growing from one to two feet high, found in all parts of the country, particularly at the South. This is different from the common hoarhound.

WINTER GREEN, Partridge-Berry, Ground-Holly, Mountain-Tea (*Pipsissewa Umbellata*).

Part used—The leaves.

This plant is much used by the Indians for rheumatism, and is a very prompt and efficient remedy in inflammation of the kidneys and bladder, and is held in high esteem by some physicians in dropsy, female obstructions and suppressed urine, diarrhea and dysentery. The infusion of the leaves may be used in doses of from two to four tablespoonfuls, three times a day. For dropsy, this remedy is perhaps unsurpassed, especially when in that following measles and scarlet fever. Prof. Goss says, "If I had to depend upon one single remedy in dropsy, I believe I would as soon risk this one as any other in the entire materia medica." Dose of the fluid extract, from one to two teaspoonfuls.

Description—This is a beautiful little evergreen shrub found in all parts of the country, in sandy regions, mountains and dry barrens.

WITCH HAZEL, Spotted Alder, Snapping Hazel-nut (*Hamamelis Virginica*).

Part used—The bark.

To check internal bleeding, it is among the best articles known. Dose, half to two-thirds of a teacupful of a decoction of the leaves or bark, three times a day. In urgent cases it may be given more frequently. A poultice of the bark will remove painful inflammation of the eyes. The decoction of it is seldom surpassed for the piles. It is coming into general use as a remedy for bloody piles. It is used as an enema. Inject one-half ounce into the rectum and retain as long as possible; renew after every bloody discharge. It is used by enema in diarrhea, dysentery, leucorrhea and falling of the womb. For sore throat and mouth it is employed as a gargle. An ordinary dose is from one to two tablespoonfuls, taken three times a day.

Description—It grows from ten to twenty feet high, along streams and hillsides, with large leaves; flowers appear after the leaves have fallen off, the fruit ripening the next autumn.

WOOD BETONY (*Betonica Officinalis*).

This is a new plant, but is proving to be a most remarkable remedy in the cure of chronic liver complaint and in inflammation of the bladder and kidneys, and in dropsy. Dr. F. Herring, in speaking of it in "New Preparations," says, "I know of no other single remedy in the materia medica that produces such marked results in the treatment of chronic liver affections as this. The usual dose of the fluid extract is from fifteen to thirty drops three or four times daily. The tincture is equally useful. It has proved very successful in chronic lung affections, when there is a slimy mucous expectoration, accompanied by a tight cough. It is almost a specific for chronic inflammation of the bladder and kidneys, and in all cases of bloody urine, and as it contains no toxic properties it can be used for children equally as well as for adults."

Procured at drug stores.

WORM SEED, Jerusalem Oak (*Chenopodium Anthelminticum*).

Parts used—Seeds and tops.

This is a reliable remedy for expelling worms. A strong infusion of the tops may be used, or the pulverized seeds, in doses of one teaspoonful mixed with molasses, taken three times a day. The oil of the plant is often employed, and is to be administered in doses of four to ten drops.

Description—Height from two to four feet, with yellowish-green flowers, which are oval and dotted on the under side. The whole plant is distinguished by a peculiar disagreeable smell. Grows on open grounds and waste places.

WORMWOOD (*Artemisia Absinthium*).

Part used—The plant.

It is valuable as a fomentation in bruises, sprains, cuts, etc. The cold infusion is useful in intermittent fever, worms, and to promote the appetite in dyspepsia. Dose, from one to four tablespoonfuls twice a day.

Description—It is a perennial plant and generally cultivated in gardens for medical uses.

XANTHIUM SPINOSUM, Spiny Burreed, Burr-Thistle.

This plant is considered by some European physicians as almost a specific for hydrophobia or the bite of rabid animals. In reference

to its use the following is given from a letter in the *Therapeutic Journal*, published at Paris, by Dr. Grzymala, a South American physician: "I have used the Xanthium now a number of years with the best success, and it has not yet been my lot to observe a *single* case where it has disappointed me, although I have had occasion to administer it at least a hundred times to men as well as to animals bitten by rabid dogs and wolves.

Dose of the fluid extract, ten to twenty drops; of the infusion, half a teacupful three or four times a day.

YEAST (*Cerevisiæ Fermentum*).

This is a very excellent remedy in the treatment of typhoid and scarlet fever, and likewise in malignant sore throat, and in all cases where there is a disposition to putridity. Dose, from one to two tablespoonfuls every three hours. When yeast is combined with charcoal and elm bark and applied to dangerous ulcers, it will remove the tendency to mortification. Latterly, a drop or two of pure carbolic acid is added, which is decidedly an improvement and is regarded as the best known remedy.

YARROW (*Achillea Millefolium*).

Part used—The whole herb.

It is used very extensively for hemorrhages, as bleeding of the lungs, spitting blood and bleeding piles. It is also employed in excessive flow of urine, leucorrhea, chronic dysentery and chills and fever. Dose of the infusion, from one-half to a teacupful three times a day; of the oil, ten to fifteen drops; of the tincture, two to three teaspoonfuls.

Description—Height one to two feet, with a branching top, having a bitter, pungent taste and a rather pleasant aromatic odor. It grows usually in open lands and along water-courses.

YELLOW DOCK, Sour Dock, Narrow Dock, Curled Dock (*Rumex Crispus*).

Parts used—The root and seed.

A decoction is an effective cure for some forms of dysentery. It is of great service and usually prompt in the cure of the itch. It is taken internally, and at the same time applied externally as an ointment. It has latterly been used with good success in dyspepsia and chronic bronchitis. Prof. E. M. Hale reports several cases of these diseases cured with it. Dose of the decoction or sirup, a

wineglassful three times a day. Dr. Howard says: "The dry root pulverized and steeped, one teaspoonful to a teacupful of hot water, is excellent in all cutaneous affections and various other complaints, particularly ulcers and scurvy. In this last disease it is recommended very highly; one case successfully treated with nothing but the decoction of the dock root, has fallen under our own notice. Bad ulcers and hard tumors have been removed by the application of the bruised root in poultice. A strong decoction in milk is recommended as an infallible remedy for bleeding at the stomach.

Description—Height from two to three feet, with slender, crisped-edged leaves, and yellowish roots. The leaves and stalks have a sourish taste. It grows in waste grounds and meadows, and along fences.

YELLOW PARILLA, Sarsaparilla, Vine-Maple, Moon-Seed (*Menispermum Canadense*).

Part used—The root.

It is an efficacious remedy for scrofula, and cases are recorded in which the use of it alone has affected a complete cure. As a tonic restorative it is very valuable in convalescence from fever and ague. Its established reputation has been the basis of popularity on which several patent medicines have been largely sold throughout the country, both as tonics and blood purifiers. It is good in constitutional syphilis, skin-diseases, rheumatism and dyspepsia. In large doses it is emetic and cathartic. It is used in mercurial diseases and chronic inflammation of the stomach and bowels. Dose of the decoction, from half to a wineglassful three times a day; of the extract, two to four grains; of the tincture, one to two teaspoonfuls.

Description—It is a climbing vine, generally found in rich bottom-lands. It grows from twelve to fifteen feet long, with smooth, dark-green leaves which are nearly round.

YELLOW POND-LILY (*Nuphar Lutea*).

For spermatorrhea, or an involuntary discharge of the seminal fluid, this is an effective remedy. It also controls the excessive desire for sexual indulgence. Dose of the saturated tincture is from ten to fifteen drops, three times a day; of the fluid extract, five to ten drops. It will be found a valuable remedy in nymphomania.

YELLOW JESSAMINE (*Gelsemium Sempervirens*).

Part used—The root.

It is an excellent remedy in St. Vitus's dance, nervous head-

ache, pneumonia, lock-jaw, leucorrhea, neuralgia, rheumatism, inflammation and determination of the blood to the brain, and used very extensively in bilious, intermittent and typhoid fevers. Its usual effects are clouded vision, double-sightedness, blindness, general relaxation, inability to open the eyes, and sometimes complete prostration; but these effects will soon pass away, leaving the patient refreshed and relieved or completely restored. In the administration of the medicine, as soon as the above effect is induced, no more should be given, at least until these symptoms have ceased. The dose is from ten to fifteen drops, and even as high as thirty drops have been given in high grades of fever. Two or three doses are generally all that will be required if it is used in moderately large doses. It equalizes the circulation, produces perspiration and allays nervous excitement. It may be given at any stage of the disease, but it should be used with caution, as large doses have proved fatal. When it has been given in too large doses, *stimulants will counteract its effects, as whisky or brandy; or Turk Island salt*, the size of a pea, or aqua ammonia may be inhaled. The tincture of the root of this plant is the preparation usually employed and may be had at the drug stores; dose, five drops. It is an anti-spasmodic, and as such it is valuable in asthma, spasms of children and strictures of the urethra. It has a specific action on the mucous tissues, which renders it a very valuable remedy in the inflammatory stage of gonorrhea. The ordinary dose of the tincture is from five to ten drops every three hours. The fluid extract is the form in which it is not infrequently employed. Dose, three to eight drops, every one, two, three or four hours. It is now used as a remedy for spinal meningitis. See page 306.

YELLOW POPLAR, White Poplar, Tulip Tree (*Liriodendron Tulipifera*).

Parts used—Bark and twigs.

It is a very popular remedy in many places for worms. It is useful in dyspepsia and dysentery. Dose of the pulverized bark, half to a teaspoonful. It may be used in decoction or tincture. A tea made of the twigs and drunk freely is invaluable in the cure of kidney-complaint. It is regarded as a certain and speedy remedy in chills and fever when administered in equal quantities with wild-cherry-tree bark and dogwood-bark, made into a decoction. Dose, a wine-glassful, three times a day, before meals. This decoction is invaluable as a restorative medicine for the general health, or the decoction or tea of the bark of the poplar alone is scarcely excelled for all debilitated conditions of the system.

YERBA BUENA (*Micromeria Douglassii—Benth*).

This is of recent introduction from California, where it is

employed very extensively to expel worms, for fevers, and in female diseases. Dose of the fluid extract, from thirty drops to one and a half teaspoonfuls, twice a day. A tea of the herb may be given three times a day.

YERBA MANSA (*Anemonsis Californica*).

Part used—The root.

This plant is found from Arizona to California, and has stimulant, astringent and tonic qualities. In diarrhea and dysentery it is a remedy of pronounced value. Dose, of fluid extract of the root, fifteen drops to a teaspoonful.

May be had at drug-stores.

YERBA SANTA (*Eriodictyon Californicum*).

This is a comparatively new, yet in many sections of the country it has been a leading remedy for piles, cough, laryngitis and bronchitis. A physician, writing from Texas in regard to it, observes, "I can verify the statements concerning the yerba santa in piles, as I have cured three cases that had been given up as incurable." It is used in asthma and kidney affections with excellent effect, and for chronic coughs many who have employed it pronounce it "unsurpassed." Some recommend that it be combined with grindelia robusta in the form of a sirup as making it more efficient. Dose of the fluid extract is from ten drops to a teaspoonful three times a day. A tea of the leaves may be drunk freely three or four times a day. Dose of the fluid extract, from fifteen drops to a teaspoonful; of the solid extract, three to six grains; of the sugar-coated pills, one to two pills. These preparations may usually be found at drug-stores. The term "Yerba Santa" is one given by the Spanish, which signifies "saint herb" or "holy herb." It is a native of California. The virtues herein ascribed to it are endorsed by the most eminent physicians in that State.

Description—The plant is somewhat branching and attains a height of from two to four feet. The leaves are petiolate, finely serrated and oblong, the upper surface presenting the darkest and richest green color and so finely varnished with the gum-resin it contains as to glisten like a mirror. The leaf is the part used in medicine.

YERBA REUMA

This new remedy is from the Pacific Coast, but can now be generally had at all drug stores. Prof. Bundy, of the California Medical College, writes: "It is surpassing all other remedies for catarrh, leucorrhea and gonorrhea." See the treatment of these diseases respectively in another part of this volume, for the proper mode of using it. It is also employed in the treatment of diarrhea, dysentery and sore eyes. It is especially applicable for gleet and shingles. Parke, Davis & Co., of Detroit, prepare sugar-coated pills (and likewise the extracts) of this plant, which are very pleasant to take. These preparations can now usually be had at drug stores, and are regarded by physicians and druggists as a purer article than those prepared by other parties.

HOW TO COLLECT AND PREPARE PLANTS.

The different parts of a plant are to be gathered when their peculiar juices are most abundant in them.

Barks, whether of the roots, trunk or branches, must be gathered in autumn or early in the spring, when they peel off most easily. The most active barks are generally from young trees. After shaving off the outer portion of the bark, cut thinly and place in a good position in the shade to dry.

Roots—After the leaves are dead in the fall, or better in the spring before the sap rises, are the times to collect roots.

Seeds and Flowers—These should be gathered and dried in the shade, only after they are fully ripe.

Medicinal Plants—They should be taken while in blossom and dried in the shade, but may be gathered at any time before frost comes.

Leaves should be collected while the plant is in flower, spread thinly on the floor of a room through which there is a constant current of air, and dried as quickly as possible.

Fruits, Berries, etc., may be spread thinly upon the floor, or hung up in bunches to dry.

All vegetable medicines should be kept in a dry and dark place, as for instance in tin canisters, which are superior to any kind of vessel for powders. Roots are best kept in covered boxes. Tinctures, sirups, etc., are best kept in bottles whose outsides are painted black, in order to protect the articles from the action of light.

HOW TO PREPARE HERBS FOR USE.

An infusion or decoction is to be made by adding one ounce of the plant, bruised, to a pint of water; the tincture, by adding an ounce

of the powdered article to a pint of alcohol or brandy and allowing it to stand for twelve days, frequently shaking; and the essence, by dissolving one ounce of an essential oil in a pint of alcohol.

Teas, otherwise called infusions, may be made by putting one handful of the herb into one pint of boiling water, and allowing it to stand for an hour.

Decoctions may be made in the same way, but all the strength should be extracted by continuous boiling.

TABLE OF DOSES FOR CHILDREN.

OF LIQUIDS.

If the dose of a grown person is one teaspoonful, or	60 drops.
A child's, one year old and under, should be	3 "
" from 2 to 4 years old, " "	5 "
" " 4 " 8 " " " "	10 "
" " 8 " 13 " " " "	12 "
" " 13 " 18 " " " "	20 "
" " 18 " 21 " " " "	30 "
And from about 21 " 50 " " " "	60 "
" " " 60 and upwards, about	30 "

When a teacupful, or twelve tablespoonfuls is a dose for an adult—

A child's, one year old and under, should be	½ tablespoonful.
" from 2 to 4 years old, " "	1 "
" " 4 " 8 " " " "	2 "
" " 8 " 13 " " " "	2½ "
" " 13 " 18 " " " "	4 "
" " 18 " 21 " " " "	½ teacupful.
And from about 21 " 60 " " " "	1 "

IN DRY MEASURE.

If the dose for an adult is	1 drachm
That for a child 1 year old should be	3 grains.
" " " 2 " " "	4 "
" " " 4 " " "	10 "
" " " 8 " " "	15 "
" " " 13 " " "	20 "
" " " 18 " " "	30 "
" " " 21 and upwards	60 "

TABLES OF WEIGHT AND MEASUREMENT.

FLUID MEASURE.

4 Gills make	1 pint, pt.
2 Pints	1 quart, qt.
4 Quarts	1 gallon, gall.
60 Drops make	1 fluid drachm
8 Drachms make	1 fluid ounce
16 Ounces make	1 pint

A tablespoon contains		½ ounce.
A pint	"	16 ounces.
A teacup	"	1 gill.
A wineglass	"	2 ounces.
A teaspoon	"	60 drops.

Four teaspoonfuls are equal to one tablespoonful.
Three teaspoonfuls are equal to one dessertspoonful.

DRY MEASURE.

A tablespoon contains		4 drachms, or ½ ounce.
A teaspoon	"	1 drachm.
A teaspoon	"	60 grains.
A teacup		12 tablespoonfuls.
A wineglass	"	4 "

APOTHECARIES' WEIGHT.

20 Grains, or grs., make	1 scruple, scru., or ℈
3 Scruples	1 drachm, dr., or ʒ
8 Drachms	1 ounce, oz., or ʒ

Medicines should always be weighed or measured. It is advisable to have a graduated glass measure for liquids, which can be purchased at any drug store, which gives the drops, drachms and ounces.

The following tables are employed by physicians and druggists:

60 minims (*m*lx)	make	one fluid drachm (fʒj.), or 60 drops.
8 fluid drachms (fʒviii)	make	one fluid ounce (fʒj.)
16 fluid ounces (fʒxvi)	make	one pint (oct j.)
8 pints (oct.viii)	make	one gallon (cong.j.)

For the "pint"—*octarius*, O. or Oct. is used; for the "gallon"—*congius*, Cong. is the abbreviation. āā, or ana, means "of each." Drops (guttæ) are frequently named or prescribed; in medicine, a drop (gtt).

The characters marked on weights and graduated measures are explained as follows:

ʒj one ounce.
fʒj one fluid ounce.
ʒss half an ounce.
ʒj one drachm.
fʒj one fluid drachm.
ʒss half a drachm.
℈j one scruple.
℈ss half a scruple.

The marks and words used by physicians and apothecaries may be a little more fully explained by the following table:

℞ stands for *recipe*, and means *take*.
āā means of each.
lb. means a pound.
Cong. means a gallon.
Decoct. means a decoction.
Ft. means make.
Garg. means a gargle.
Gr. means a grain.
Gtt. means a drop.
M. means mix.
Mist. means a mixture.
Pil. means a pill.
Pulv. means a powder.
S. means write.
ss. means a half.

FRENCH DECIMAL WEIGHTS.

One centigramme is equal to		¼ grain.
Two centigrammes	"	½ grain.
One demi-decigramme	"	1 grain.
One decigramme	"	2 grains.
One gramme	"	18 grains.
One gramme and three decigrammes are equal to		1 scruple.
Two grammes	"	½ drachm.
Four grammes	"	1 drachm.

One decigramme is equal to	2 drachms and 36 grains.
Three decigrammes and two grammes are equal to	1 ounce.
Demi-kilogramme "	1 pound.
Kilogramme "	2 pounds.

HOW TO PREPARE POULTICES.

Starch-Poultice—Thicken starch with boiling water. When slightly cool, stir in a little lard.

Linseed or Flax-seed Poultices—Boiling water should be poured into a heated bowl, and into this the seeds or meal quickly sprinkled with one hand, while the mixture is constantly stirred with a knife or spatula with the other till a thin, smooth dough is formed. If the water be added to the meal, little knots are apt to collect. The dough should be quickly spread on warm linen already cut to the required shape, or put into a bag, and applied. Linseed meal retains heat and moisture for a long time, but it is liable to irritate delicate and inflamed skin.

Bread-Poultices—Put slices of bread into a basin, pour over them boiling water, and place by the fire for a few minutes, when the water should be poured off; replace by fresh boiling water, and this again poured off, and the bread pressed, beaten with a fork, and made into a poultice. Bread-poultices are valuable for their bland, non-irritating properties.

Charcoal-Poultices—Uniformly mix charcoal with bread-poultice, and just before the application of the poultice sprinkle the surface with a layer of charcoal. Or charcoal may be sprinkled on a wound or ulcer and a simple bread-poultice applied over it. Charcoal-poultices correct offensive smells from foul sores, and favor a healthier action.

Carrot-Poultices—Boil carrots quite soft, mash them with a fork, and apply in the ordinary way. They are said to make wounds cleaner and healthier.

Use of Poultices—Poultices are chiefly useful in the following complaints: Pneumonia, pleurisy, bronchitis, pericarditis, peritonitis, acute rheumatism, lumbago, and to mature and facilitate the discharge of matter in abscesses, boils, etc.

When used to mature abscesses, or disperse inflammation, poultices should extend beyond the limits of the inflamed tissue; but after the discharge, the poultices should be very little larger than the opening through which the matter is escaping. If continued too long, large poultices sodden and irritate the parts, and may develop fresh boils around old ones.

In pneumonia and all deep-seated inflammations, they should be renewed as soon as they become cool, and the former one not disturbed till the fresh one is ready to replace it. In bronchitis and pneumonia, a jacket-poultice, to go round the chest, with tapes to secure it in front and over each shoulder, is necessary to insure efficient and uniform action.

To retain heat for a long time, poultices should be covered with oil-silk, or with a layer of cotton-batting. One of these methods is preferable to a very thick poultice, which might cause inconvenience or pain.

In acute lumbago they must be applied thick, hot, large enough to cover the affected part, and be renewed immediately they become cool. After continuing this treatment for from one to three hours, the skin should be wiped dry and covered with flannel, and this again with oil-silk or cotton. Like the poultice, this last application promotes free secretion from the skin, to which the good results are mainly due.

Substitute for Poultices—As a substitute for a poultice, *Spongio-piline* may sometimes be used. It is made of sponge and wool felted together in three layers, and coated on one of its surfaces with an impermeable substance. By moistening the soft inner surface with water, the warmth and moisture of the ordinary cataplasm or poultice are secured; or by sprinkling the same surface with lotions it may be made the vehicle for various medicinal substances. Spongio-piline is often valuable during the formation of abscesses or irritable sores, and especially when required

for persons pursuing their usual occupations. But for the relief of severe pain, a large, hot poultice is more soothing. Poultices should be continued till pain has subsided, or the sore begun to granulate; afterwards a wet compress, covered with the oil-silk, should be applied.

Dry Dressings—If the edges of wounds be brought and kept together all foreign particles having been removed, they may often be allowed to heal without any assistance beyond the additional support and protection of rollers of lint. Blood, if already covering the part, is the best and most protective plaster. Layers of cotton and lint exclude air, moisture and infecting germs and promote healthy action. Dry earth or clay, finely powdered and sifted, is recommended by Dr. Groves for putrid wounds or cancerous sores.

Poke-root Poultice—Place the fresh root in hot ashes, allow it to roast until soft, pound and apply in the form of a poultice. This will discuss or "scatter" tumors, if applied in time; otherwise it will hasten their suppuration. It should be renewed three times a day.

In general, poultices are best applied warm or tepid; they should not be suffered to get dry before renewed.

Elm-Poultice—Take elm-bark in powder, or fresh bark pounded; hot water, a sufficient quantity to form a poultice of the proper consistence; mix. This poultice is very valuable in all cases of burns, scalds, swellings and ulcers, painful tumors, and wherever a soothing poultice is required. It is seldom equaled.

Brown Sugar and Soap Poultice—Mix equal parts of the sugar and soap; very valuable for boils.

Discutient Poultice—Make a very strong tea of white-oak bark, and thicken with corn-meal; apply it as hot as can be borne, and change it every two or three hours. This will discuss or "scatter" tumors or swellings.

Hop-Poultice—Boil a handful of hops for a few minutes in a pint of water in a covered vessel; squeeze out the juice and strain; the liquor is now to be put again on the fire and thickened with Indian meal, and a small portion of lard is to be added while it is cooling.

Lobelia-Poultice—Powdered lobelia and ground slippery-elm bark, each, one ounce. Stir these into hot, weak lye, to make a poultice. For wounds, fistula, whitlow, boils, erysipelas and stings of insects.

Lye, or Alkaline Poultice—Take lye, rather weak, warm it, and stir in of slippery-elm bark sufficient to form a poultice. This is very useful in inflammation of the breast or other parts; in felons, white swellings, lock-jaw, wounds, fistulas, etc.

Yeast-Poultice—Take, of milk, blood-warm, one pint; yeast, one gill. Stir in, fine slippery-elm bark, to form a poultice. Applied to gangrenous ulcers it is more efficacious than any other and sooner arrests mortification, used with proper auxiliaries. It is also very serviceable in other species of inflammation.

Sumach-Poultice—Take, of the bark of the roots of the common sumach; bruise it well, and boil in sweet milk or water for twenty minutes; then thicken with corn-meal. This is a highly valuable poultice for all kinds of foul ulcers, and especially those which affect the bones.

Potato-Poultice—Boil the common potato, mash or bruise soft, and then stir in the slippery-elm bark. This poultice has been used with success in inflammatory sore eyes of an acute character, when other means have failed.

Mustard-Poultice—A sufficient quantity of powdered mustard should be taken to make a thin paste. This should be mixed with boiling water, with a small quantity of vinegar added, if a very strong poultice is required, and spread on brown paper or cloth, with a piece of thin muslin over it.

A mustard poultice should generally be kept on from ten to twenty minutes. If the skin is very irritable afterwards, a little flour should be sprinkled over it. This will remove the burning sensation. It is said that if the white of an egg is used to mix the mustard with, it will prevent it from blistering.

Ginger-Poultice—Wet flannel in hot vinegar and sprinkle on ground ginger—good for toothache.

Hot Water—In bruises, hot water is most efficacious, removing pain and totally preventing discoloration and stiffness. It has the same effect after a blow. It should be applied as quickly as possible, and as hot as it can be borne.

Flour-and-Ginger Poultice—Equal parts of flour and ginger should be applied in poultice; is excellent for "drawing boils to a head."

Black-Willow Poultice—Take the bark of the black-willow root (called pussy willow), pulverized, a sufficient quantity; form it into a poultice by the addition of cream.

This is a common poultice of the celebrated Dr. Bone, of New Jersey, who acquired great celebrity for the successful treatment of inflammation and ulcers.

Onion-Poultice—Made in the same way as the carrot-poultice. This is stimulating and induces indolent sores to maturate more freely. It is excellent for boils.

Mush-Poultice—Stir Indian meal, in small quantities, into water kept boiling until the whole has acquired the proper degree of consistence or thickness.

Oat or Corn-Meal Poultice—Place hot water in a basin and stir in the meal slowly while it boils till the poultice is of the right thickness; that is, till it will not run on the cloth on which it is spread.

Stimulating Poultices—are required for two purposes, either to hasten the separation of a dead part, or slough or "core." For the first of these objects, yeast, stale beer-grounds or molasses is used; for the second, mustard.

HOW TO PREPARE FOMENTATIONS.

Fomentations are employed for the purpose of lessening pain and inflammation and for relaxing parts. They are usually composed of bitter herbs steeped for a time in hot water or hot vinegar and water, and are then placed in muslin cloth and applied over the affected part as hot as can be borne. Care must be taken not to moisten the clothing of the patient or the bed.

They are to be renewed often; the more severe the pain or inflammation, the more frequently they should be renewed or changed.

Hop-and-Vinegar Fomentation—Valuable for pain in the head, bowels and other parts.

St. Johnswort Fomentation—This will discuss or scatter caked breasts, tumors and swellings.

Boneset Fomentation—Valuable for any painful or inflammatory part or swelling.

Wild-Indigo Fomentation—This is very valuable for dispelling tumors of the breast.

Hemlock Fomentation—A fomentation of the leaves of the hemlock will relieve the pain and swelling of the testicles caused by the transmission of the mumps to these parts. It may likewise be applied, with equal effect, to similar swellings of the breasts of females.

Poke-Leaf Fomentation—Painful piles quickly yield to this.

Smart-Weed Fomentation—This will prevent or remove the black and blue spots from bruises, especially those of the eye.

Stramonium-Leaves Fomentation—Valuable for relieving inflammation of the stomach and bowels.

Hop Fomentation—Also valuable for the same.

Mullein-Leaf Fomentation—Useful for dispelling tumors.

HOW TO PREPARE DECOCTIONS.

Decoctions are certain preparations of medicines and drinks made by boiling substances in water for a considerable time.

They should be kept covered during the process and strained while hot.

The usual proportion of vegetable substances, in preparing decoctions, is one ounce of root or plant used to a pint of water.

Vegetables designed for decoction should be cut into slices or bruised into a coarse powder, that their strength may be more easily extracted.

HOW TO PREPARE INFUSIONS.

Infusions, or, as they are frequently called, teas, are prepared by putting a handful (from half an ounce to an ounce) of the herb, root or bark in a pint of boiling water (in some cases cold water may be employed). Porcelain or glass-vessels are preferred for preparing them in, and they should be kept covered. There are some medicinal articles whose virtues are injured or destroyed by boiling; consequently, such are made, when required for use, into infusions. In warm weather they should be made every day; in the winter, every other day.

INJECTION OR CLYSTER (Enema).

These are liquid preparations, to be introduced into the rectum, or lower bowel, by means of a syringe. A large syringe should always be used for adults, and a small one for infants and children. This enables the practitioner or nurse, one of whom should always perform this simple operation, to throw up the injection to such an extent or distance as will be efficacious. Sometimes the stomach is in such a state that medicine, especially cathartic medicine, cannot be given or retained in order to act on the bowels. In this case, the syringe is very useful. In general, injections should take the place of cathartics, and it is extremely probable that people would have been in a much better condition, *physically*, had there never been a cathartic administered; and this we deem a safe rule to follow, in all cases--that neither the one nor the other should ever be used except in cases of great urgency, or necessity, and when resorted to, their use discontinued as soon as possible.

HOW TO MAKE TINCTURES.

The preparations called tinctures are made by bruising the roots, leaves or barks used, to a coarse powder, and placing it in the proper amount of diluted alcohol (equal parts of alcohol and water) or whisky, letting it stand from seven to fourteen days, shaking it several times each day. Tinctures are generally made by adding an ounce of the medicinal substance to nine ounces of alcohol.

JAPAN GIVING LIGHT ON AN IMPORTANT SUBJECT

THE MOST FAMOUS SALT MINE ON EARTH
CRACOW, POLAND.

This salt bed is 500 miles long and 20 miles wide.

The above cut shows a street and car track in a town in this mine. All you see, walls, ceiling and floor, is solid salt. The people of the town—1,000 men, besides women and childrern—have no doctor.

They cure all their ailments with the **SALT REMEDIES** given on the following pages.

The Russians say that salt is more valuable to cure sickness than all the drugs in an empire.

DIVISION NINE

MISCELLANEOUS.

SALT REMEDIES

Catarrh—Experience has proved that salt and milk is one of the few remedies that will cure catarrh. The solution should be prepared as follows: To a half pint of milk add one-fourth of a teaspoonful of salt. Snuff this solution into the nostrils and retain it there for half a minute by holding the nose with the finger, and immediately repeat the operation; do not attempt to pass the liquid into both nostrils at the same time, but snuff it into one nostril while the other is compressed by the finger. This operation should be repeated three times a day, gradually increasing the strength of this solution each week by adding a little more salt. But care should be taken not to make it strong enough to give any irritation at the time of using it. The solution should always be used lukewarm.

Chronic Sore Eyes—A solution of salt has cured chronic sore eyes after all other efforts to relieve them had failed. Its value is increased in some cases by the addition of equal parts of sugar. Ordinarily, a wash for the eyes is prepared by dissolving one-half teaspoonful of salt in one-fourth teacupful of water; bathe the eyes with this solution, two or three times a day, and if painful lay on a cloth wet with it at night. A few drops may also be put into them.

Felon—A poultice of salt and the white of an egg will prevent it. No one need have a felon if this application is made in time, for it will always disperse or "scatter" it.

Burns—Moistened salt is said to be almost equal to any other remedy for burns. It will prevent blistering if applied in time.

Neuralgia—A small sack of warm salt will often relieve this painful affection. The salt may also be applied as follows: One quart of water; one-half pint of salt; add the salt to the water while boiling and apply warm constantly. A case of neuralgia of the hip of several years' standing was cured with this remedy.

Bleeding Piles—An eminent physician of New York City says that salt is the best remedy he has found, in his practice, for the cure of this disease. He has, he further says, "always been successful with it in the treatment of this complaint." It is to be used by injecting a strong solution two or three times a day. Some

persons may employ it stronger than others; this is to be determined by the effect produced in each case.

Toothache—A solution of salt and water, mixed with an equal portion of the spirits of camphor, applied to the tooth by means of cotton will cure many cases of toothache. Warm salt-water held to the tooth is very effective in some cases.

Sprains and Bruises—Keep applied a strong solution of salt. Speedy relief will be obtained. There is no remedy superior to it for these difficulties.

Disease of the Spleen—Prof. King says, "Salt perseveringly used has effected many cures of chronic disease of the spleen. Dose, a teaspoonful three times a day."

Cholera-Morbus—For this disease, it is one of the best remedies known. It is to be used by adding one tablespoonful to one-half a tumblerful of water and as much good vinegar and one teaspoonful of ground black pepper. Dose, two teaspoonfuls every twenty minutes.

Colic—In the violent internal pain termed colic, a teaspoonful of salt dissolved in half a teacupful of cold water, taken at commencement of an attack, is among the most effectual and speedy remedies known.

Fits and Convulsions—Salt is one of the best remedies in these difficulties. When they first make their appearance no time should be lost in administering salf-water, if sufficient sensibility remains to allow of swallowing; if not, the head must be sponged with cold water until the senses return, when salt water will completely restore the patient.

Fever and Ague—The celebrated Dr. Broke gives the following: "Take a handful of fine, white salt, roast it in a stove with moderate heat till it becomes of a brown color, like coffee. Dose, for an adult, one tablespoonful dissolved in a glassful of tepid water and to be taken on each morning following the fever. To overcome the thirst that may follow a small quantity of water should be taken through a straw. During the succeeding forty-eight hours after taking the salt the food should be chicken or beef-broth. During eighteen years in which I have employed this remedy I have been uniformly successful with it."

Cough—In many cases of troublesome coughs, if the patient will take a "pinch" of salt on retiring at night, it will measurably relieve the difficulty and procure rest and sleep.

Bleeding of the Lungs and Stomach—For these affections it is unsurpassed, when properly administered. It should be given in half-teaspoonful doses every twenty or thirty minutes until the bleeding is checked, when nature will heal the lesion.

Diarrhea—Salt and cider-vinegar will cure obstinate cases of chronic diarrhea. Take good cider vinegar one-quarter tumblerful; salt, heaping tablespoonful; add hot water to fill the tumbler, and give a teaspoonful to a tablespoonful, according to age, of the solu-

tion as hot as can be borne, every five or ten minutes till the whole is taken. If vomited up repeat the dose.

Falls and Blows—In cases of apparent death from these causes, the administration of salt-water will speedily restore the patient.

Worms—To one teacupful of tepid water add one teaspoonful of salt. Use this quantity as an injection once a day, and in four or five days the person will be entirely free from the pin or thread worm.

Dyspepsia—Salt will cure some forms of this disease when taken in doses of one-fourth to one-half a teaspoonful twice a day.

Disordered Stomach—In many cases of this difficulty, one-half a teaspoonful of salt dissolved in half a teacupful of water will prove effectual, when taken morning and evening.

Painter's Colic—Apply to the bowels a small sack of hot salt. It is better, however, to keep two in use; for while one is applied the other can be warmed and thus a constant succession sustained. Relief is frequently obtained with the first application. At the same time take a half teaspoonful internally.

Erysipelas—A strong solution of salt and brandy applied to the affected parts by means of cloths kept constantly moist with the solution will arrest the spread of erysipelas. Cases have been cured with this remedy when they had baffled professional skill for days in succession.

Sore Throat—Many cases of ordinary sore throat can be cured by using a gargle of salt-water every hour, and in severe cases every half hour.

Apoplexy—Salt is one of the best remedies known for restoring a patient in a fit of apoplexy. It is to be applied wet to the head and temples, until sufficient sensibility returns to admit of swallowing, when salt-water given internally will restore the patient.

Pain in the Stomach—A small draught of salt and water usually affords speedy relief for this difficulty.

Heart-burn—A pinch of salt, dissolved in the mouth will often cure this difficulty. In some cases repeat the dose.

To Remove Dandruff—Wash the head every two days with a strong solution of salt-water; where sea salt is not available, use a small handful in a basin of water. This has removed dandruff where every other means had failed.

Hives—A physician writes, "I cure hives by simply binding common table-salt on the back of the neck. I have employed this remedy for years, and been successful with it."

As regards the medicinal properties of this article, there is, perhaps, no natural production that posesses so many curative virtues. And if it were employed in connection with the other simple remedies given in this volume for the treatment of diseases, their successful use would demonstrate their superiority over poisonous drugs.

LEMON REMEDIES.

If the people only knew the many curative virtues of lemon, in different diseases, it would not only save suffering and human life in thousands of instances, but vast sums of money that are paid in doctors' bills.

Felon—*A Chinese doctor says: "I always cure felons with lemon." Cut off the end, insert the finger in the lemon and bind it on. In the morning the matter will be drawn almost to the surface, when it can be removed with a penknife.* When taken in time it will scatter the felon.

Sure Cure for Colds and Coughs—ROASTED LEMON, WHEN PROPERLY PREPARED, IS ONE OF THE MOST EFFECTIVE REMEDIES KNOWN FOR THE CURE OF COLDS AND COUGHS, ESPECIALLY THOSE OF LONG STANDING. FOLLOWING ARE DIRECTIONS FOR ITS USE: It should be roasted or baked in a moderately heated oven for about half an hour, or until it begins to crack open or the juice begins to exude. Dose, from one-half to a tablespoonful of the juice, sweetened to the taste, taken before each meal, and again before retiring at night. In severe cases take it every three or four hours.

Biliousness—LEMON IS ONE OF THE BEST REMEDIES KNOWN FOR THE CURE OF BILIOUSNESS, BEING FREE FROM ANY OF THE INJURIOUS EFFECTS THAT PILLS HAVE. (See page 80 for the mode of using it.)

Malarial Diseases—To the juice of half a lemon add two tablespoonfuls of water and a tablespoonful of sugar; take at a dose. Repeat three times daily. Take no medicine, and in a few days the disease will have abated.

Erysipelas—Lemon juice has cured erysipelas when all other means have failed. (See page 154 for its use.)

Scarlet Fever—The lemon cure is described on page 176, where a medical practitioner states that he can cure forty-nine cases out of fifty with the lemon treatment.

Diphtheria—*This dangerous disease can be cured with lemon juice. Patients apparently in the last stages have been saved by this remedy. Mrs. Loveland, of Buffalo, N. Y., had a daughter so far gone with diphtheria that the attendant physicians had given up the child to die. After the doctors were gone and the family was in despair, a friend suggested a trial of the lemon remedy as found in this book. It was accordingly administered and the patient began to improve almost as soon as the first dose was given. When the doctor returned the next morning expecting to write out the certificate of death he was startled to find the child well on the way to recovery. Asking in surprise if they had given his last remedy, Mrs. Loveland said, "No, doctor, we did not. You said Clara would not live, and we decided as a final resort to give her the lemon remedy." "Oh," said the doctor, "I've heard that it is an excellent remedy." When asked why he did not himself administer it, his only reply was that it was not professional.*

It is to be used as follows: The throat should be gargled with the juice every hour or two, and at the same time from a half to a teaspoonful swallowed. This cuts loose the false membrane in the throat and permits it to come out. In case the clear juice is too strong it may be diluted with water.

LEMON TREE.

The Lemon, as Medicine a Marvelous Gift to Man.

There is but one other thing in the whole range of Medical Science that will cure as many different diseases as will the Lemon. Twenty-two different diseases can be cured with the Lemon alone; that is, the citric acid in the Lemon will destroy the bacteria or germs of twenty-two various diseases, as hereafter shown. If the people knew how to use the Lemon as medicine, as given in the following pages, they would save an enormous amount of suffering and vast sums of money now spent in doctor's bills.—Dr .S. Asada.

Rheumatism.—*The lemon remedy as given on p. 264, will cure more cases of rheumatism, 10 to 1, than any other known remedy.*

Mr. Joseph Hutchinson, of Kokomo, Ind., was cured by this remedy after he had been entirely helpless for months. His whole system was swollen, even his tongue. He was entirely speechless. He was given up to die when they commenced giving him this remedy. In one week from that time the swelling had entirely disappeared, he was able to be up and in a short time was entirely well.

This remedy was likewise sent to a lady friend of Mr. Hutchinson in Columbus, Kentucky, who had long been a helpless invalid from this disease. The cure in her case was equally as marvelous as that of the other.

A well-to-do farmer residing in the vicinity of the same town, having been a victim of rheumatism for many years, after visiting different cities for treatment and having been reduced to poverty, was informed by the physicians that his case was incurable. He was induced by a gentleman, who had himself been cured of rheumatism with this remedy, to try it also, and he likewise was soon a well man. See page 264 for its use.

Some rheumatic patients seem to already possess an excess of the acid in the system. Such cases cannot be cured with this remedy, but these cases are exceptional.

Lime juice seems to possess about the same medical properties as lemon juice, and is sometimes used in place of the lemon.

Some of the most inveterate cases have been cured by using lemon in the following manner: Fill a quart bottle with sliced lemon, then put as much alcohol in the bottle as it will hold. Take one-half tablespoonful before each meal and before retiring at night. In Mr. Hutchinson's case he was given lime juice which had been procured at the drug store, and he was given at first about one-half a tablespoonful, diluted with a little water, every three hours.

Dropsy—Remove the skin from a lemon, cut the substance of the fruit into small slices, and cover with sugar. To begin with take the juice of one lemon a day, increase gradually until the juice of eight or ten a day are taken. Some hopeless cases of dropsy have been cured with this remedy.—*Dr. Naphey.*

Heartburn—This remedy will cure heartburn when other remedies fail. One dose of a half tablespoonful, diluted with a little water, is usually sufficient for a cure.

Sore Throat—For this disease the lemon juice is unsurpassed. Use it as a gargle and swallow a small portion of it while gargling.

Hiccoughs—LEXINGTON, KY., Jan. 1. [Special.]—*Two weeks ago, W. H. Sistrunk, a grocer here, read that Judge J. T. Rose, of Curryville, Mo., was dying of hiccoughs. Sistrunk immediately telegraphed him to take lemonade at intervals until he was relieved. Today he received $1 to pay for the telegram. Accompanying it was a note from Judge Rose saying that the receipt had saved his life after three doctors had given him up.*

Chills and Fever—Lemon-juice is the Spaniards' remedy for chills and fever. They regard it as an infallible cure for this disease See page 182 for the mode of using it.

Japanese Rheumatic Cure—"The lemon remedy surpasses any other ever known for the cure of rheumatism. In our hospitals it has cured five to one more cases than any other remedy, many of them the most inveterate cases of years standing. It is used both internally and externally."—*Dr. S. Asada.* See page 264 for its use.

La Grippe—Commence by taking a cupful of hot lemonade every fifteen minutes until four or five have been taken, or until you are brim full of hot lemonade, then every two hours until convalescent. The patient will perspire freely, and the pain soon cease. In case the stomach rejects lemonade, substitute orangeade and take that hot.

Consumption—A physician in the city of Berlin says, "I have been very successful in the cure of this disease, especially in its earlier stages, with the simple remedy of lemon juice. See page 89 for its use.

To Remove Tan from the Face—Wash the face with the juice of a lemon.

Stye in the Eye—Cut off a piece of lemon, and apply to the eye; renew two or three times and the eye will be well.

Corns—Lemon applied to corns, a few times, is an efficient remedy. Bind over the corn and leave on during the night.

Hoarseness—This remedy usually relieves an attack of hoarseness. It should be used in the same manner as in case of sore throat.

Asthma—Many cases of asthma have been permanently cured by the patient taking a half tablespoonful of the juice of a lemon before each meal, and before retiring at night.

Scurvy—One tablespoonful of lemon-juice taken three times a day will cure scurvy, and is also a preventive of it.

Headache—It will cure almost any case of headache, if prepared and used as follows: To the juice of two large lemons add one quart of common table tea, made from the best green tea. Add the juice to the tea when the latter is boiling hot, and when cool bottle for use. Dose, one teacupful, repeated in two or three hours.

Erysipelas—Lemon juice has cured erysipelas when all other means have failed. (See page 154 for its use.)

For Blood Poison—"When it is found that blood poisoning has set in, or when it is feared, use the following: To the juice of half a lemon, add one teaspoonful of sugar and half a teaspoonful of water, take hot at a dose, and repeat every thirty minutes for the first three hours; after that take every two hours. A CURE WILL USUALLY BE EFFECTED IN A DAY."—*Dr. L. B. Conger.*

For Removing Stains from the Hands—Use the clear lemon juice; it will remove many kinds of stains from the hands.

Lemon as a Good Tooth Wash.—Half a teaspoonful of lemon juice in a half glass of water is excellent tooth wash; it not only removes tartar but sweetens the breath.

Anti-Fat and Liver Corrective—Juice of lemon taken in hot water on awakening in the morning is an excellent liver corrective, and for stout women is better than anti-fat medicine.

Rust Stains—Lemon juice and salt will remove rust stains from linen without injury to the fabric. Wet the stains with the mixture and put the article in the sun. Two or three applications may be necessary if the stains are of long standing.

MEDICAL USES OF KEROSENE OIL.

Sore Throat—A single treatment with kerosene oil will usually be sufficient to cure the worst case of sore throat. (See page 292 for its use.)

Toothache—Saturate cotton with kerosene and insert it in the tooth. It will generally afford speedy relief.

Speedy Cure For Colds—*The kerosene oil remedy will cure most persons of a cold more speedily than any other remedy. It may be taken on sugar,* 10 *or* 12 *drops at a dose, every three or four hours. Some persons take half a tablespoon or over at a dose. Apply externally to neck and chest.*

Corns—Saturate a piece of cotton cloth with kerosene oil, apply to the corn and keep the corn wet with it as much of the time as possible for a few days and the corn will disappear.

New Remedy for Chills and Fever—KEROSENE OIL HAS BEEN FOUND TO BE A NEVER-FAILING CURE FOR CHILLS AND FEVERS. (See page 182 for its use.)

Burns—Kerosene will extract the fire from burns in many people more readily than any other remedy. It should be applied freely. Saturate cloths with it and bind on the parts and occasionally renew.

Croup—*It has been proven by experience that some of the most obstinate and apparently incurable cases of croup have been cured with kerosene oil. Those who have used it say they have never found a remedy that will so speedily cure croup as this will. Its external use is specially recommended.* But see croup on page 434 for the mode of using it.

Membranous Croup Cured with Kerosene Oil and Water—Mr. A. J. Morgan's child, of Pittsburgh, Pa., was lying at the point of death with membranous croup, having been given up by the physicians, when a lady nurse assured the parents that she could cure the child very quickly with the above named remedy, as she said her father was a Scotch physician and always cured this disease with it. To their great surprise she soon had their child cured. The treatment is as follows: Wring a cloth out of very cold water, apply to the throat, and renew it as soon as it becomes warm, at the same time give the child two or three drops of kerosene oil on a little sugar every two hours.

Diphtheria—Kerosene oil has recently been found to be an excellent cure for diphtheria. Petroleum, which is kerosene oil before it is refined, and can be bought at drug or paint stores, is the remedy used all over Germany as a certain and reliable cure. Swab the throat every four hours; in severe cases every two hours. Shake swab before applying, to prevent an excess of oil from passing into the throat.

Poison Vine, Poison Oak and Poison Ivy—Apply kerosene oil to the poisoned parts until the inflammation is allayed, after which use it three or four times a day. In a few days every trace of the disease will be gone, though for this affection use the crude article, petroleum, when it can be obtained, which it usually can be, in drug stores.

Bruises—Wet a cloth with petroleum and apply to the bruised parts and occasionally renew it the same way. It removes the soreness and promotes healing. It is a "Balm in Gilead" to those having crushed hands or fingers; it speedily abates pain and aids in healing the wound.

To Remove Dandruff—Apply kerosene oil mixed with glycerine, freely rubbing well into the roots of the hair. Use once a day until the dandruff disappears.

Rheumatism—Many people employ kerosene oil very successfully in rheumatism. The oil is rubbed on like a liniment two or three times a day.

Snake Bites—Bind cloth wet with kerosene on the wound and keep it wet. If wound is not fresh and open make a small incision across the wound before applying the kerosene, also take internally a tablespoonful of kerosene. Repeat the dose every hour till three or four doses have been taken.

Neuralgia. For some forms of neuralgia pure lard is a sovereign remedy. It is to be applied hot at the seat of the disease, three times a day until cured. After each application bind the affected parts with flannel.

Quinsy. Quinsy is another of the diseases that can be cured, and that very effectually, with kerosene oil. It is applied both internally and externally.

Lung Disease. Some surprising and unexpected cures of this disease have been made by timely use of this remedy, but this is one of the diseases that, when cured, has to be taken in its very earliest stages.

Tooth Ache. Saturate a small piece of cotton with coal oil and place it in the cavity of the tooth. In most of the cases it will afford immediate relief.

Appendicitis. The Russians have used this remedy very successfully in the treatment of appendicitis.

Piles—Coal oil has proven a very excellent remedy for the treatment of this disease. To be applied by means of injection twice daily.

Asthma—*It has recently been discovered that kerosene oil will cure the worst form of this disease.* It has been the means of curing persons who sometimes for weeks in succession could not get any sleep except when they would stand up in a corner of a room. Apply the oil to the neck and chest twice a day and at the same time pour a small quantity into the hands, rubbing them together, then inhale the fumes of it. Do this standing up, drawing the fumes as strongly as possible into both the mouth and nostrils. Repeat every three hours for the first two or three days. After that use three times daily and before retiring at night. In many instances the treatment will give relief almost immediately, though in some very severe cases relief may not be perceptible for a week or over, yet the cure will be effected in the end.

COAL OIL A PANACEA FOR MANY ILLS.

The Russians used crude coal oil for medicine for ages before the product came into use for lighting purposes.

Upon examination of the following pages one will be surprised to see how many different diseases it will cure.

The above has been known for many years as the **Health Spring in southern Russia** and the oil was termed Mecca Oil. Thousands of people came there to secure some of this marvelous fluid that was known to cure various diseases.

Dr. Poulaski, Warsaw, very truly says: "If its curative properties were everywhere known by the people it would be a great blessing to them."

The following pages shows some of the different diseases that are cured by this simple means.

Fig. 33.

SUNSTROKE.

A Speedy Cure for Sunstroke.

Kerosene oil and mustard, the Russians say, is the best remedy they have found for the cure of sunstroke.

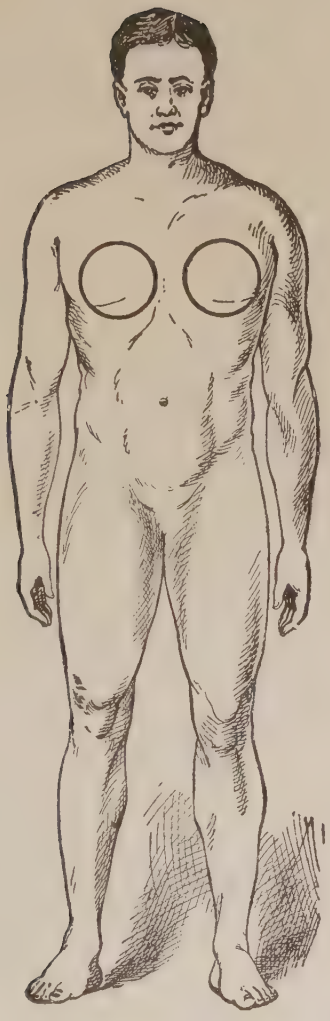


Fig. 28.

LUNG DISEASES.

Russian Cure for Lung Diseases.

Among the Russians coal oil is considered the best remedy for the cure of lung troubles. This cut illustrates precise points of application, and how hundreds of persons, given up to die by our physicians, have been cured.

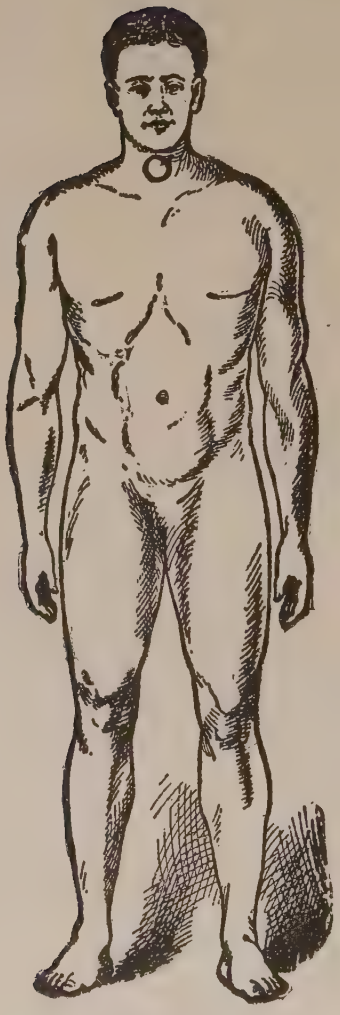


Fig. 29.

QUINSY.

Kerosene Oil a Speedy Cure for Quinsy.

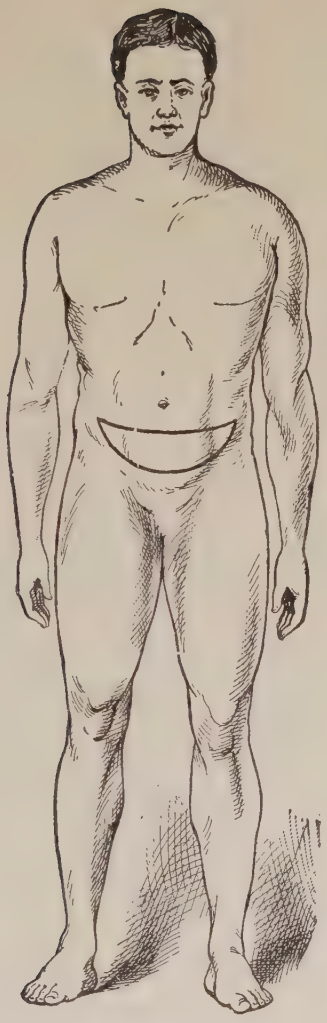


Fig. 30

APPENDICITIS, OR INFLAMMATION OF THE BOWELS

A New Remedy in This Country for Curing Appendicitis

That dreaded disease, appendicitis, does not frighten the Russians. For many years they have been curing it right along by means of such simple remedies as coal oil and turpentine. By knowing how to use these remedies many persons could avoid a painful and dangerous operation and many lives would be saved.

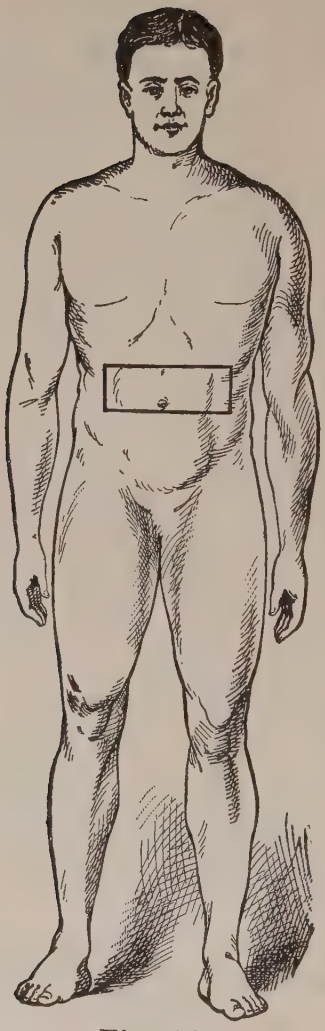


Fig. 31.

CHOLERA MORBUS.

There is no use in suffering the pangs of Cholera Morbus. The Russian method of using coal oil always cures it. Apply at points shown in cut

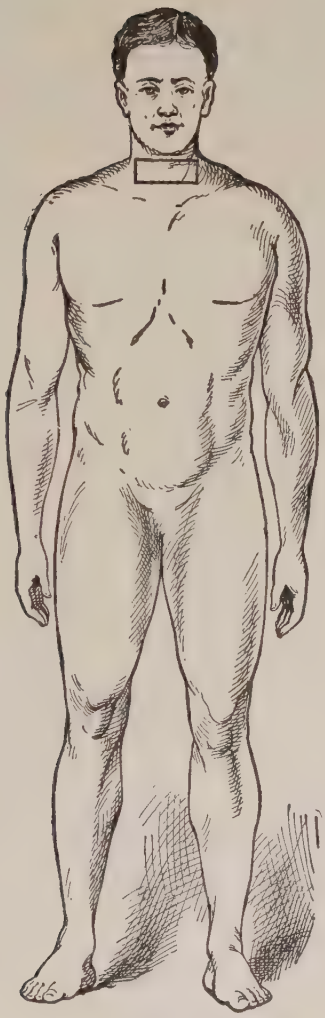


Fig. 32.

PUTRID SORE THROAT.

Kerosene Oil a Speedy Cure for Putrid Sore Throat.

No one need suffer with this disease if there is kerosene oil in the house, as it will cure it at once. Apply at the point shown in the illustration.

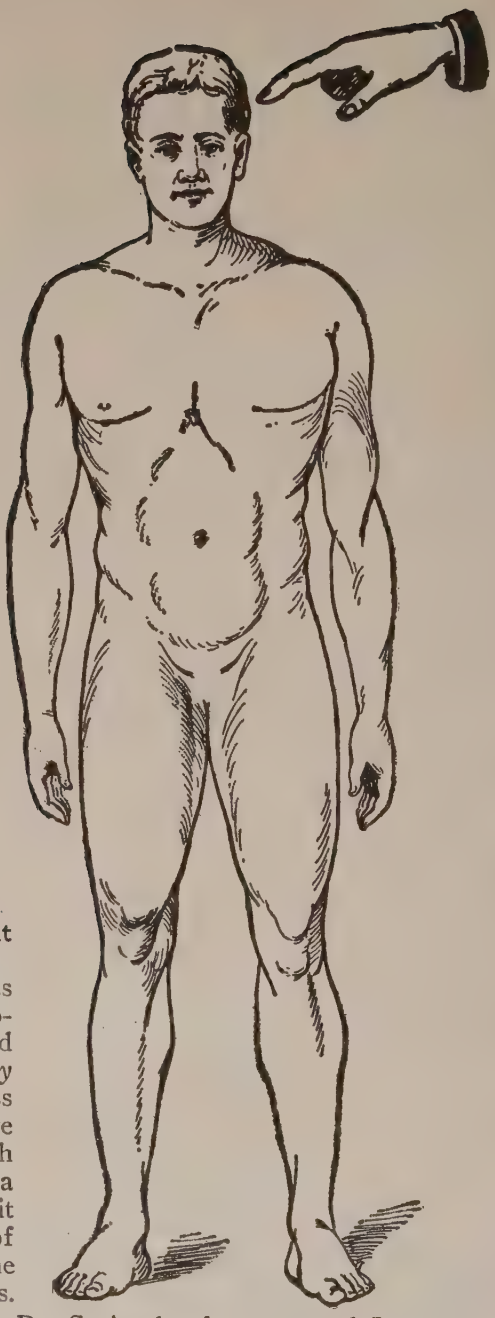


Fig. 11.

NEURALGIA.

A Speedy and Permanent Cure for Neuralgia.

Black pepper and egg, as given on page 703 and applied at the point indicated in this figure, will cure *any* case of neuralgia in less than *one night*. I have cured numerous cases with it and never failed in a single instance, whether it was a recent case or one of years standing. Apply the remedy to the nerve centers.

Illustrated treatment by Dr. S. Asada, the renowned Japanese physician.

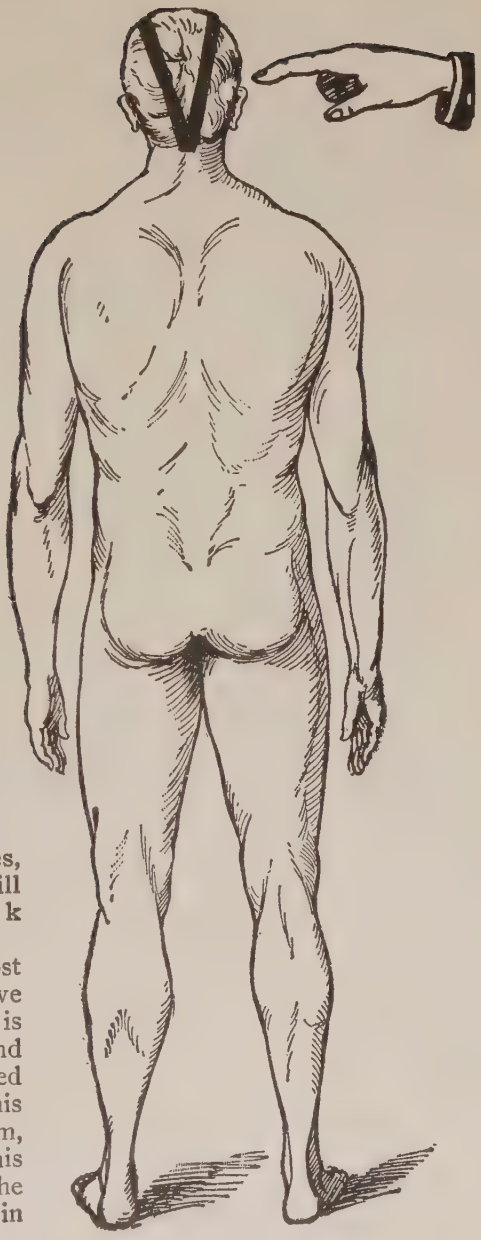


Fig. 12.
SICK HEADACHE.
Camphor and Bandages, Properly Adjusted, will Always Cure Sick Headache.

"The speediest and most effectual remedy I have found for sick headache is spirits of camphor and bandages properly applied at the points shown in this cut. People need seldom, if ever, suffer from this disease if they will use the simple means we employ in Japan."

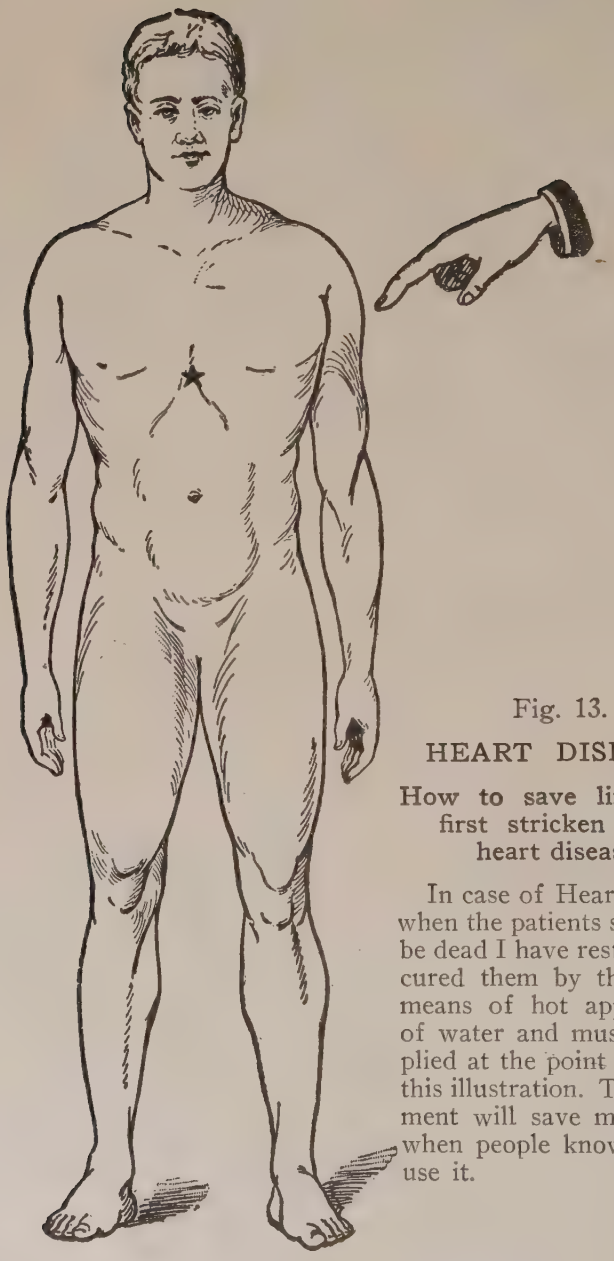


Fig. 13.

HEART DISEASE.

How to save life when first stricken with heart disease.

In case of Heart Disease when the patients seemed to be dead I have restored and cured them by the simple means of hot applications of water and mustard, applied at the point shown in this illustration. This treatment will save many lives when people know how to use it.

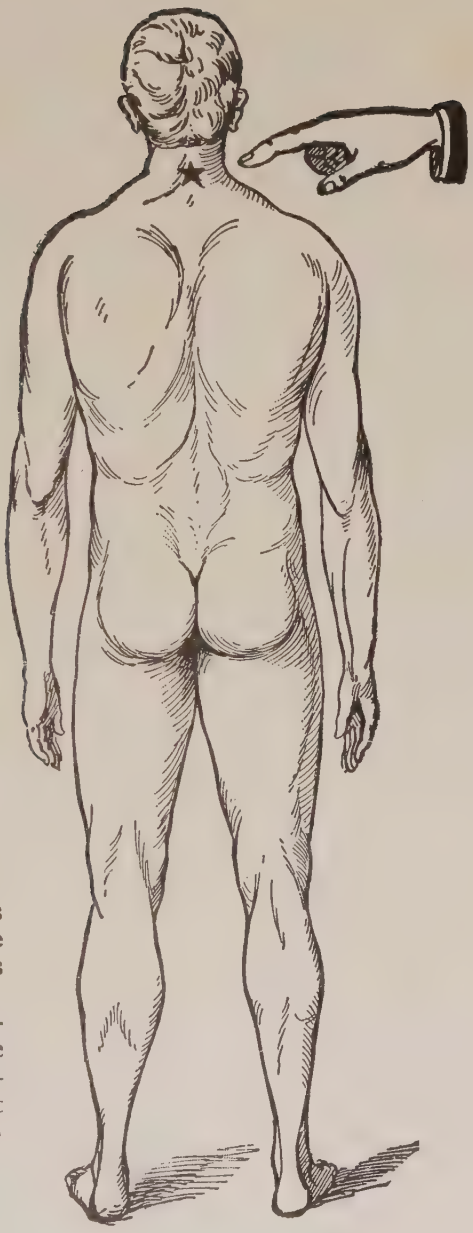


Fig. 14.

SPASMS, CONVULSIONS AND FITS.

One Application of Spirits of Turpentine will Cure Spasms, Convulsions and Fits.

A child can always be relieved at once of any of the above afflictions by applying spirits of turpentine at the point shown in this illustration

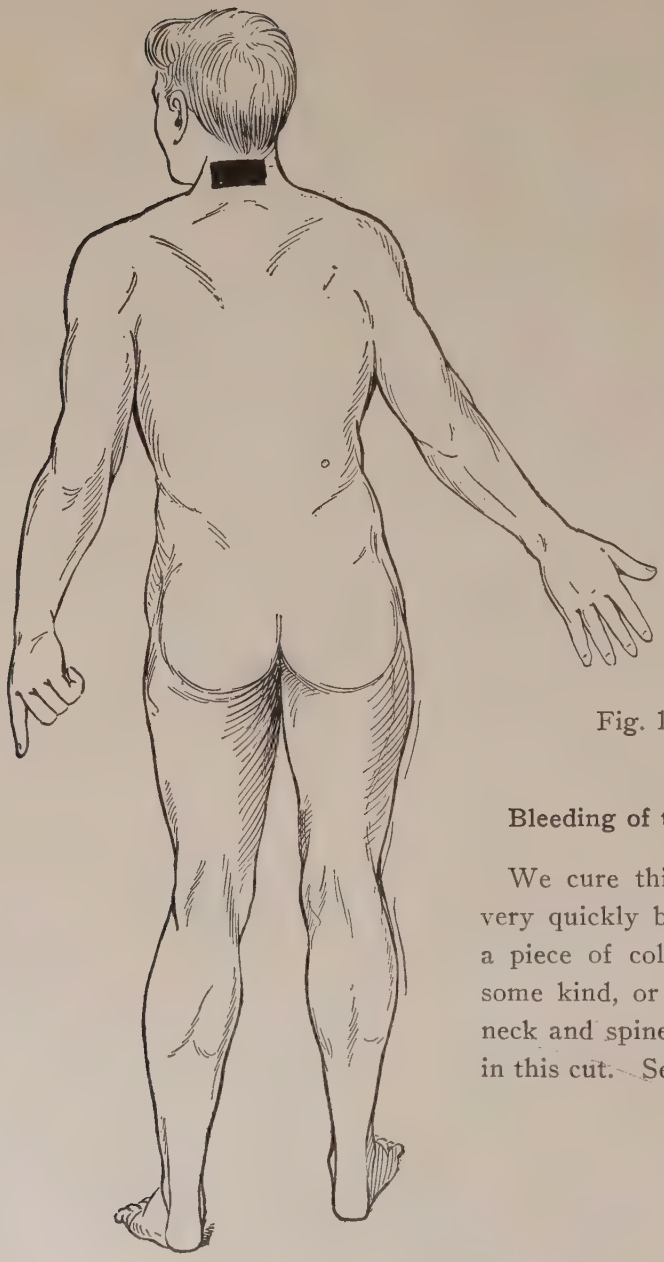


Fig. 15.

Bleeding of the Nose.

We cure this difficulty very quickly by applying a piece of cold metal of some kind, or ice, to the neck and spine, as shown in this cut. See page 686.

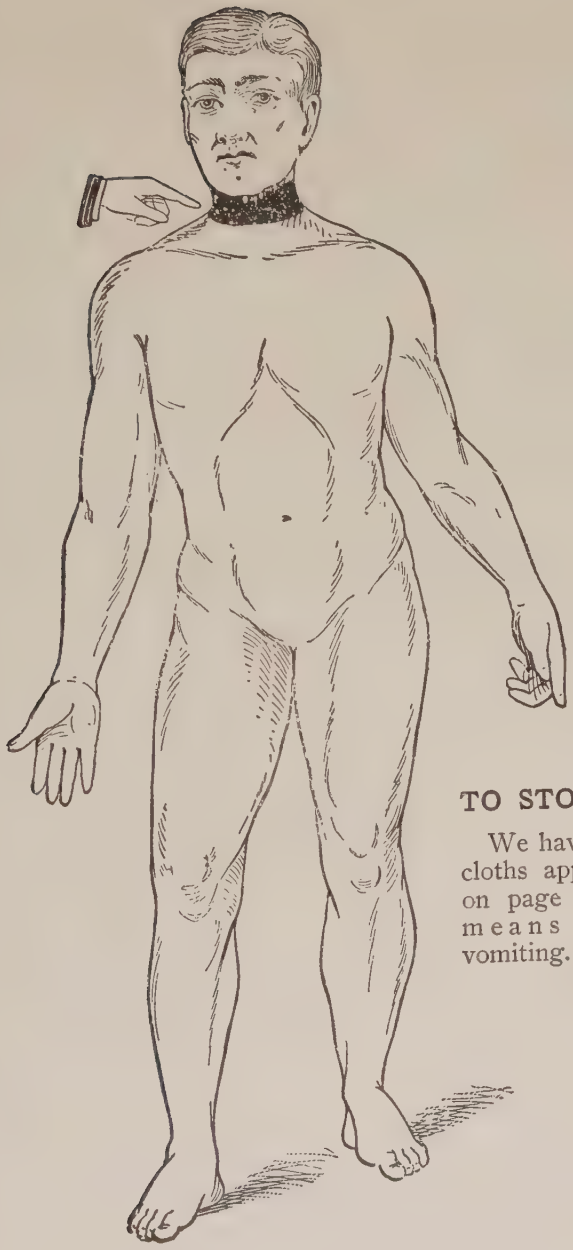


Fig. 16.

TO STOP VOMITING.

We have found that wet cloths applied, as directed on page 711, is the best means known to stop vomiting.

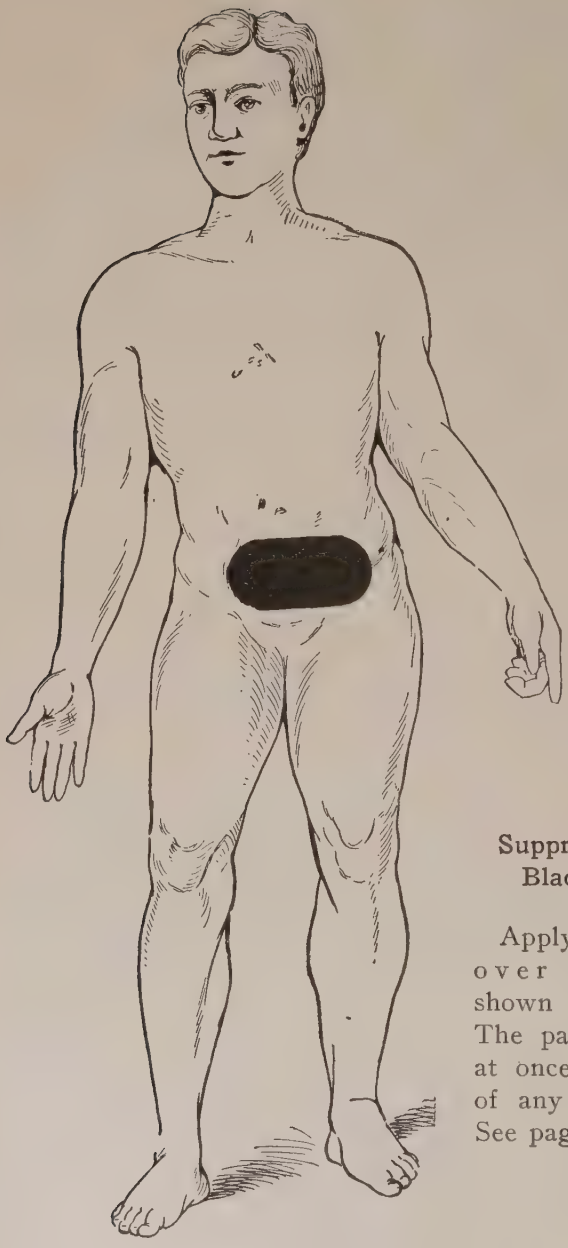


Fig. 17.

Suppressed Urine and Bladder Affection.

Apply hot fomentations over the bladder, as shown in this drawing. The patient will recover at once without the use of any internal remedy. See page 711.

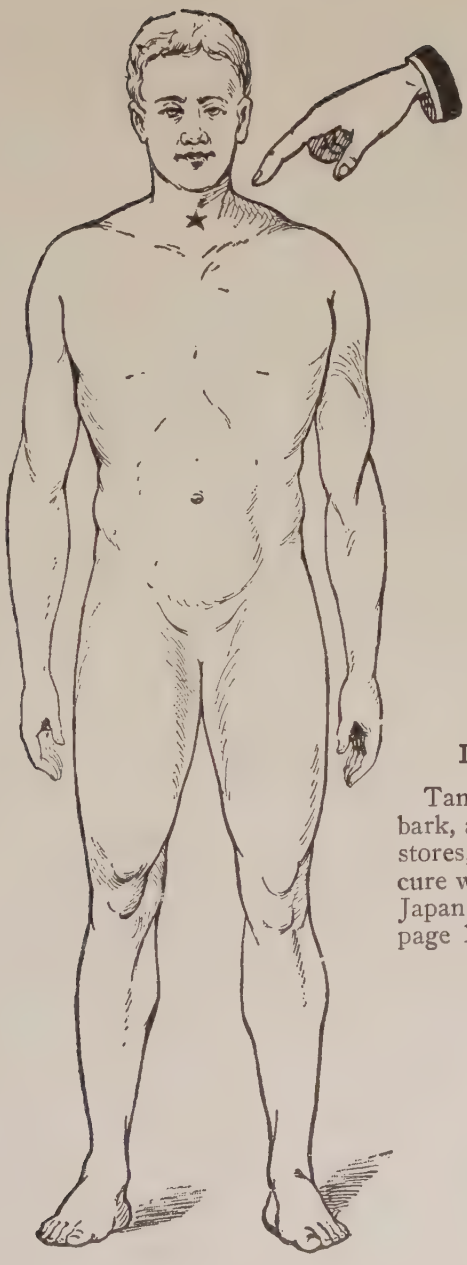


Fig. 18.

DIPHTHERIA

Tannin, made from oak bark, and found in all drug stores, is the most positive cure we have ever found in Japan for diphtheria. See page 133.

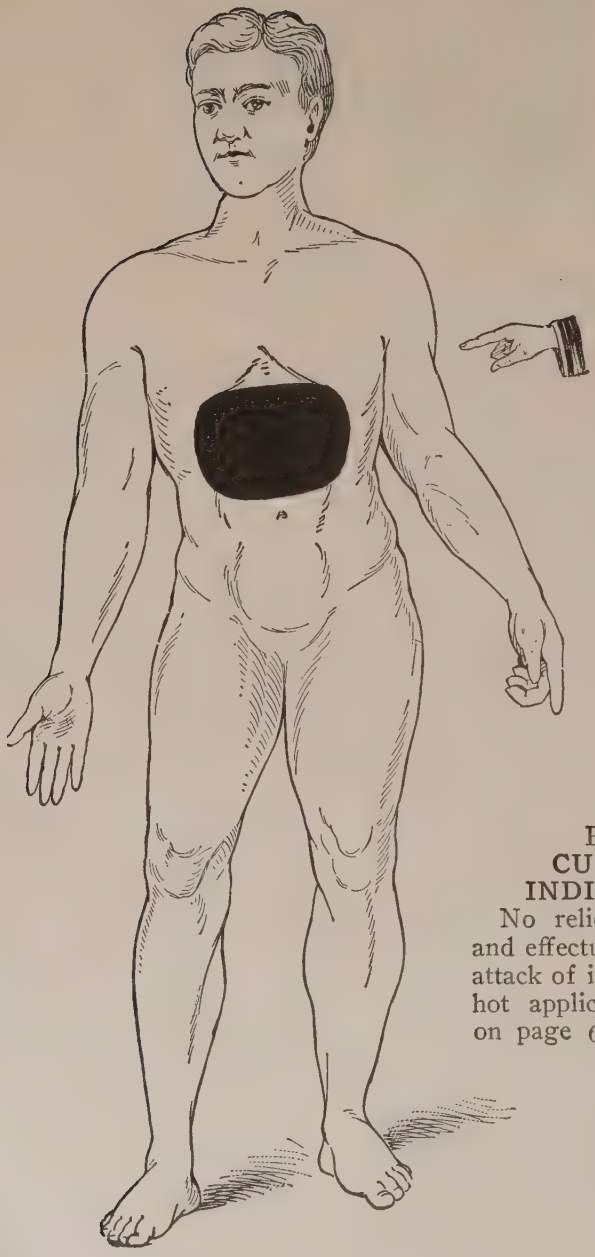


Fig. 19.
CURE FOR INDIGESTION.
No relief is so speedy and effectual for curing an attack of indigestion as the hot applications described on page 698.

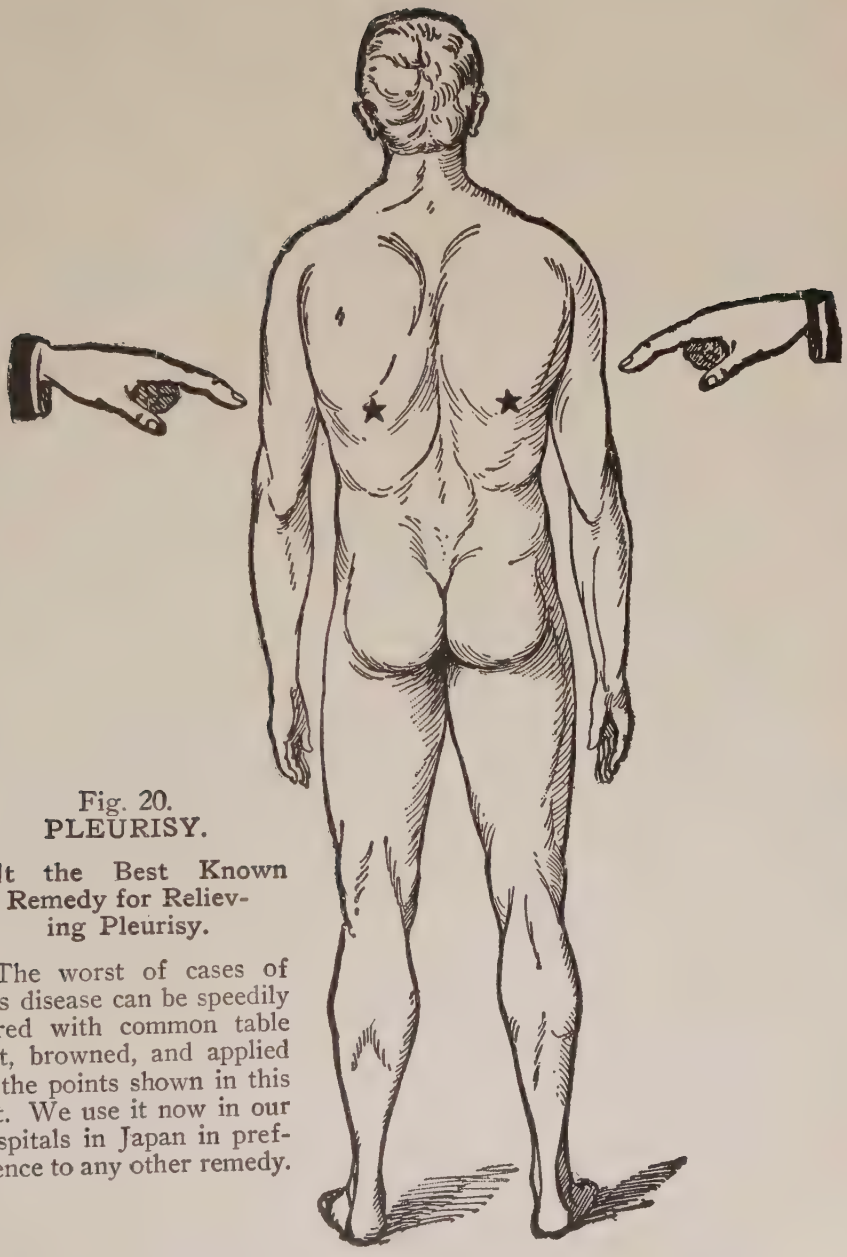


Fig. 20.
PLEURISY.

Salt the Best Known Remedy for Relieving Pleurisy.

The worst of cases of this disease can be speedily cured with common table salt, browned, and applied at the points shown in this cut. We use it now in our hospitals in Japan in preference to any other remedy.

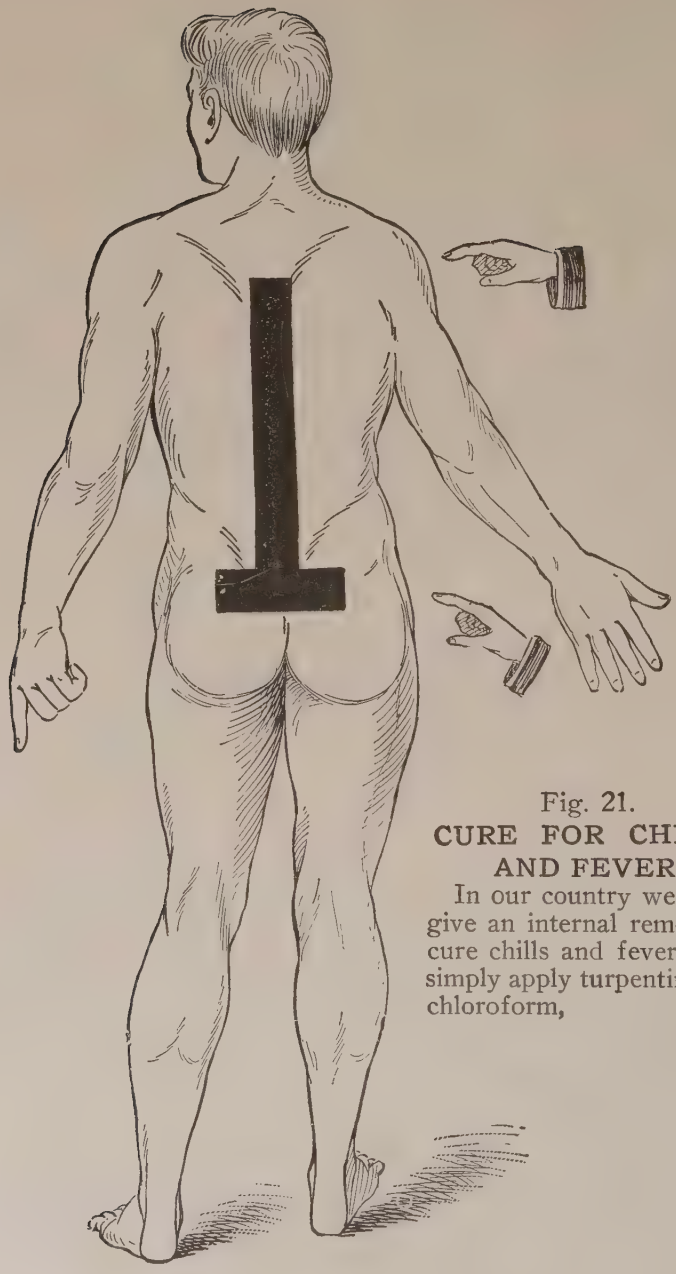


Fig. 21.

CURE FOR CHILLS AND FEVER.

In our country we never give an internal remedy to cure chills and fever. We simply apply turpentine and chloroform,

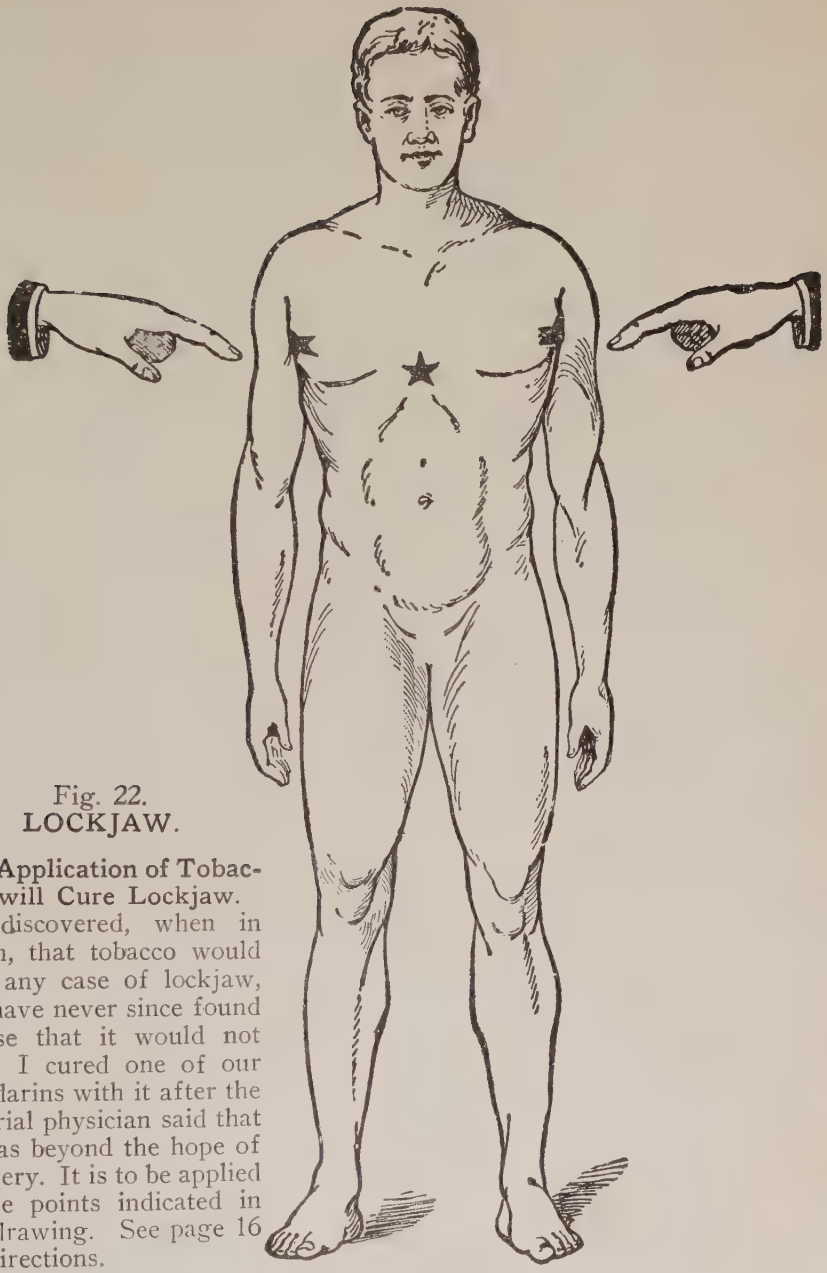


Fig. 22.
LOCKJAW.

One Application of Tobacco will Cure Lockjaw.

I discovered, when in Japan, that tobacco would cure any case of lockjaw, and have never since found a case that it would not cure. I cured one of our Mandarins with it after the imperial physician said that he was beyond the hope of recovery. It is to be applied at the points indicated in this drawing. See page 16 for directions.

The value of this Japanese treatment illustrated, cannot be too highly extolled. Its special merit is doubled by the fact that it is also perfectly safe and harmless, and can be applied by anyone.

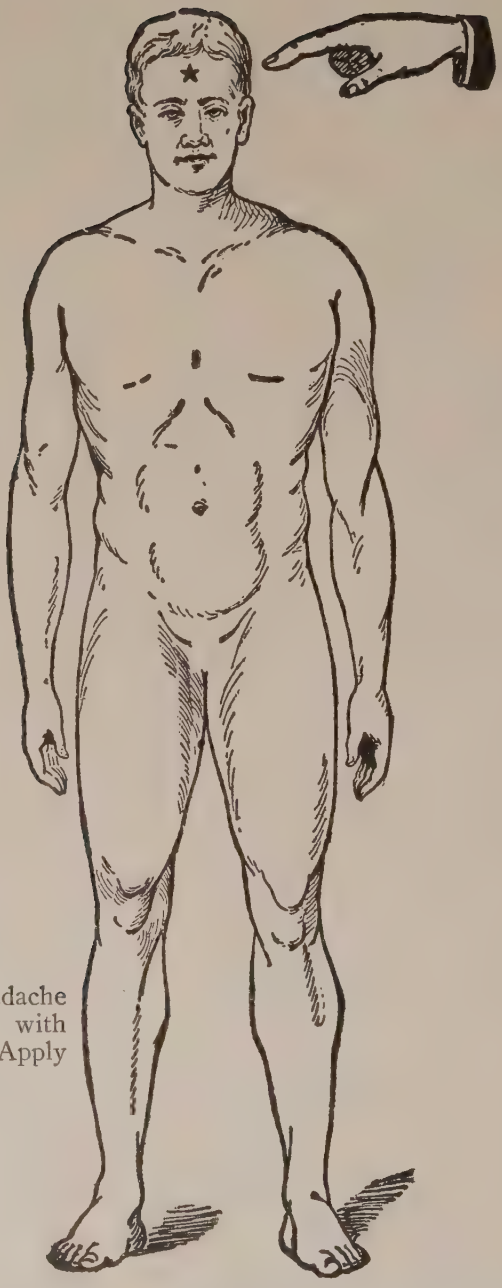


Fig. 23.
HEADACHE.

The ordinary headache can be readily cured with vinegar and pepper. Apply as indicated above.

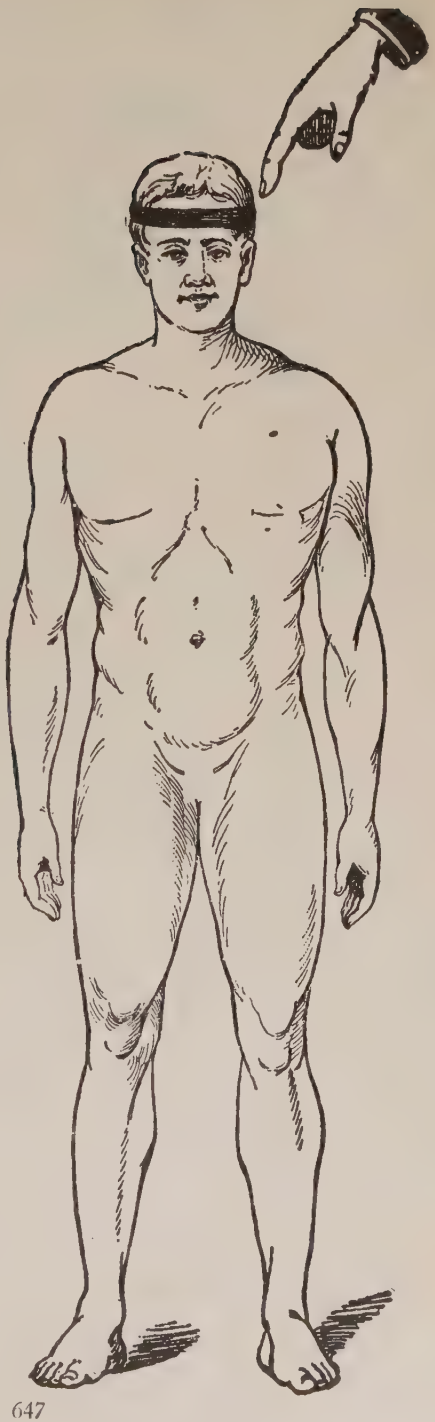


Fig. 24.
NERVOUS HEADACHE.

Essence of Peppermint a Cure for Nervous Headache.

It will have a magical effect in relieving headache when applied at points shown in this illustration.

Camphor and Pepper will Cure the Worst Forms of this Disease.

Dr. Suda, of Tokyo, states that camphor and black pepper will give the sufferer from nervous headache relief quicker than anything else.

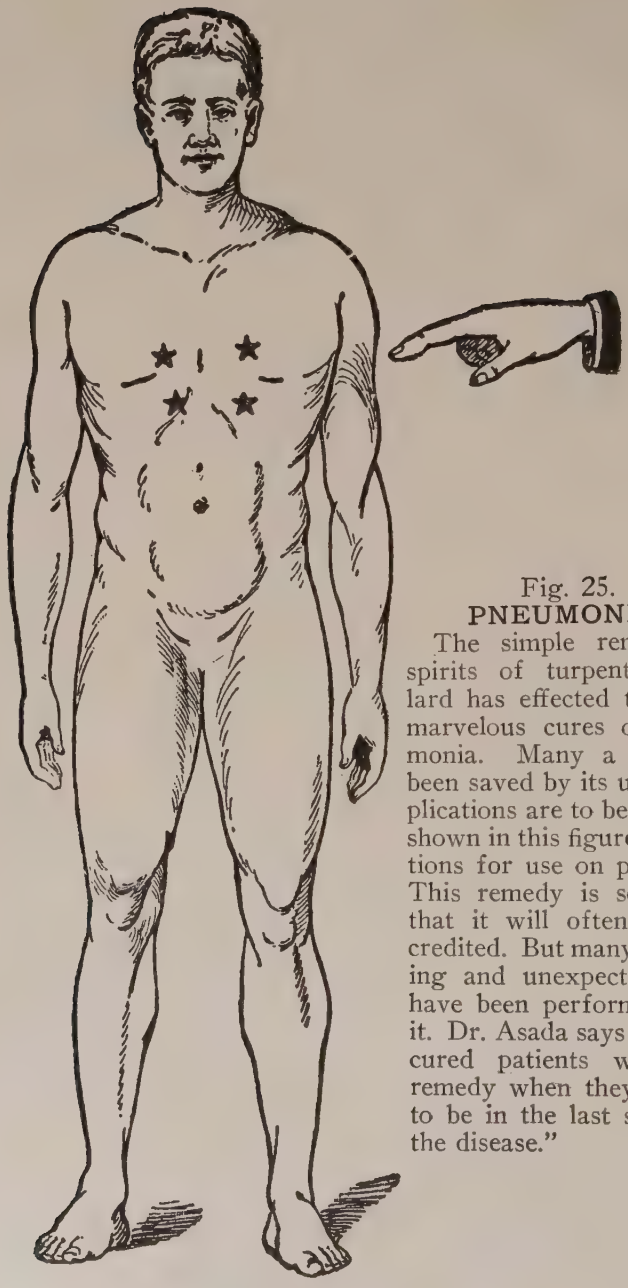


Fig. 25.

PNEUMONIA.

The simple remedy of spirits of turpentine and lard has effected the most marvelous cures of pneumonia. Many a life has been saved by its use. Applications are to be made as shown in this figure. Directions for use on page 261. This remedy is so simple that it will often be discredited. But many surprising and unexpected cures have been performed with it. Dr. Asada says: "I have cured patients with this remedy when they seemed to be in the last stages of the disease."

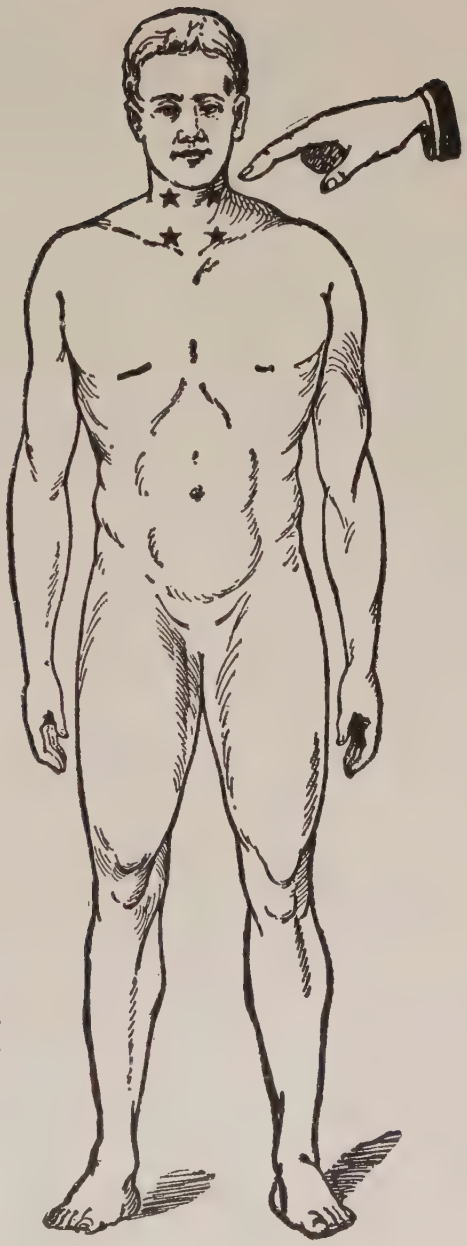


Fig. 26.

CROUP.

The life of a child in croup will never be lost if coal oil is applied externally and internally, as directed on page 434.

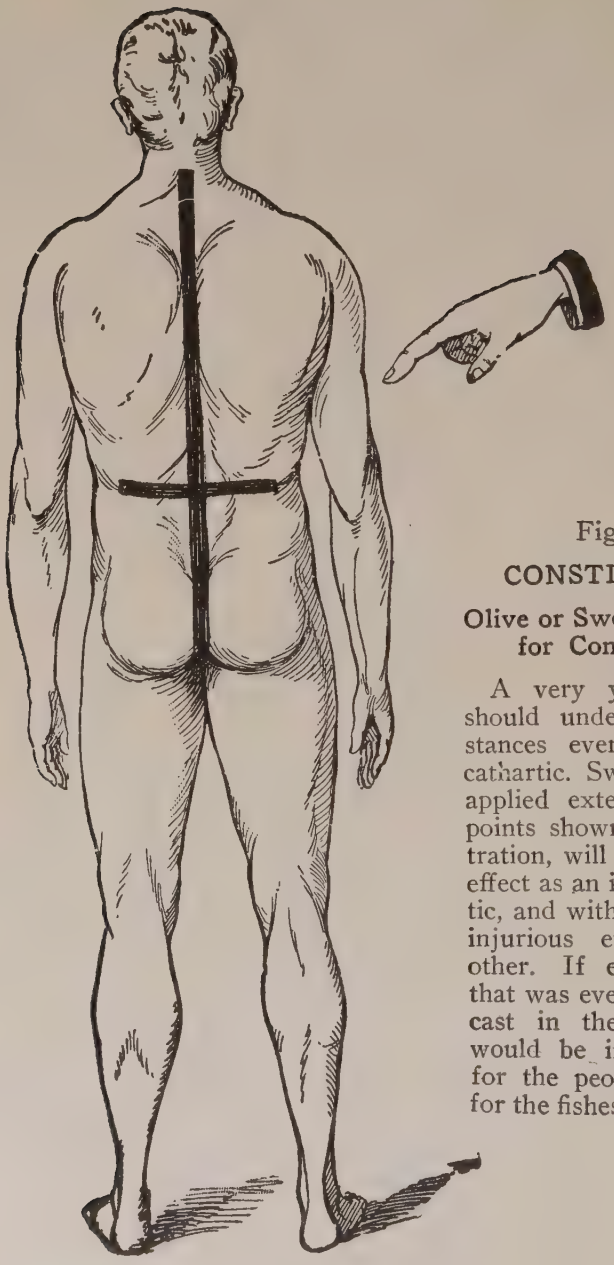


Fig. 27.

CONSTIPATION.

Olive or Sweet Oil a Cure for Constipation.

A very young child should under no circumstances ever be given a cathartic. Sweet or olive oil applied externally, at the points shown in this illustration, will have the same effect as an internal cathartic, and without any of the injurious effects of the other. If every cathartic that was ever invented was cast in the deep sea it would be infinitely better for the people, but worse for the fishes.

DIVISION TEN

INTERNAL REMEDIES

ILLUSTRATED

The following pages will indicate the character of some of the internal remedies used by the Japanese.

The Japanese, as a rule, are opposed to taking an unknown medicine into an unknown stomach to produce an unknown effect.

Savage people and animals cure their ills by eating curative vegetables and fruits. They understand instinctively the healing properties that are contained in the storehouse of NATURE. If man understood and applied the same laws they do, he would need no doctor. But food specialists are now studying the question of natural vegetable and herb cures and are teaching people the value of the common fruits and vegetables when used as medicine for various ills, many of which are found on the following pages.

DR. S. ASADA,

The Celebrated Japanese Physician.

(Attending Physician to the Imperial Family of Japan.)

The following illustrations show our mode of effectually curing many diseases without taking any drugs into the system.—Dr. S. Asada.

These people have for years been using and testing *Home Remedies,* while we have been using drugs, hence they are in advance of us in this respect.

PINEAPPLE

(Ananassa Sativa)

The pineapple is a sort of complete medicine in itself. For derangements of the stomach it has no equal. It is also used by physicians in sore throat, diphtheria and croup. See page 693.

RED PEPPER

(Cayenne Pepper)

The red pepper remedy will end almost any case of la grippe in twenty-four hours. See page 700

TOMATOES

(Lycopersicum Esculentum)

A Cure for Cholera Infantum

No one need ever go outside the garden or kitchen to obtain the best remedy in the world for curing cholera infantum. See page 443. It is used for liver complaint.

GARDEN BEET

(Beta Vulgris)

JAPANESE HEALTH TONIC

A most efficient remedy for delayed menstruation and gravel.—Dr. Suda. See page 709.

ONION

(Allium Cepa)

The onion is a good remedy for pneumonia, and many other ailments. See page 260.

BEANS *(Faba Vulgaris Podi)*

The pods of beans used for bladder trouble. See page 231.

PUMPKIN *(Cucurbita Maximus)*

A Safe, Speedy and Effectual Cure for Tape Worm.

In Japan we always use this remedy, as it was never known to fail in expelling tape worm. See page 324 for its use.

CUCUMBER

(Cucumis)

A salve made from cucumber will cure vesicular eruptions of face and hands. See page 521.

RADISH

(Raphanus Sativas)

The radish remedy is the most reliable cure that we have ever found in Japan for Bright's disease of the kidneys. See page 235.

ASPARAGUS

(Asparagus Officinalis)

Used for the kidneys. See page 699.

SPINACH

(Spinachium)

(The Broom of the Stomach)

Used for stomach and liver troubles and contains quantities of iron. See page 708.

RASPBERRY

(Rubus Strigosus)

Raspberry valuable wash for sores and ulcers. See page 570.

APPLE

Japanese fountain of eternal youth and beauty. Bark of apple tree is used for fever and ague. See page 949.

STRAWBERRY

(Fragaria Vesca)

Valuable in bowel complaint, cholera and gravel. See page 586.

POPPY

(Papaver (Somniferum)

A Cure for Ulcers, Painful Swellings and Inflammations.

The poppy will almost instantly relieve the pain, soreness and inflammation of these maladies. See page 567.

CRANBERRY. (*Viccinium Macrocarpon.*)

The Cranberry Remedy will end any case of piles. A simple test will prove to the patient that it is a positive cure in any case, no difference of how many years standing. We have never known a failure in our country.

See page 255 for its use.

CARROT. (*Daucus Carota.*)

The carrot will cure kidney complaint when all other means fail. See page 236 for its use.

CELERY. (*Apium Graveolens.*)

A Sovereign Remedy for Rheumatism.

This plant, prepared and used as given on page 266, is a sovereign remedy for the cure of rheumatism. The late Dr. Rhodes Wilkins of Chicago says he has used it with the very best of success in his practice. The celebrated Dr. Paine's celery compound produces the same effects, but costs more than twenty times as much.

HORSERADISH. (*Cochlearia Armoracia.*)

A Speedy Remedy for the Cure of Hoarseness.

See page 540.

GRAPE VINE. (*Vitis Vinifera.*)

A Cure for Dropsy.

Death from dropsy in our country is unknown. This disease need never prove fatal if the grape vine remedy is used as directed on page 130.

Chronis Dysentery.—There is no better remedy known for the cure of chronic dysentery.

PLANTAIN. (*Plantain Major.*)

The common garden plantain will make doctors' bills wholly unnecessary in case of worms in children.—Dr. Suda.

MUSTARD. (*Sinapis Nigra.*)

A Cure for Dyspepsia.

Mustard seed is the favorite remedy of Dr. Suda of Tokyo, for the cure of dyspepsia. Directions on page 554.

Nervous Headache.—Sufferers from this disease will find that mustard seed used as directed on page 554 will be more than a blessing to them in relieving their suffering.

ALMOND TREE. (*Amygdalis Communis.*)

Almond a Preventive and Cure for Wrinkles.

The reason why Japanese women, even in advanced age, are noted for being so free from wrinkles and look so young, is because they use an almond lotion, easily obtained and inexpensive.

Beautiful Complexions.—The women of Paris are renowned in all the world for their pretty complexions. It is because they have abandoned cosmetics, and use the almond preparation above mentioned.

PEPPERMINT. (*Mentha Piperita.*)

An Immediate Cure for Sick Stomach and Vomiting.

See Page 562.

The essence of peppermint is equally as effective as the herb.

A Cure for Headache.—Peppermint acts almost like a charm in giving relief in headache.

For Sea Sickness essence of peppermint is a perfect specific. See page 293.

WILD GRAPE. (*Berberis Aquifolium.*)

One of the greatest remedies known for the cure of luecorrhea or whites. We cure all cases of it in any stage of the disease. Directions on page 416.

A Blood Purifier.—For this purpose it has no equal.

YERBA REUMA. (*Frankenja Grandifolia.*)

Dr. J. H. Bundy's Famous Cure for Catarrh.

Dr. Bundy, of the California Medical College, says:

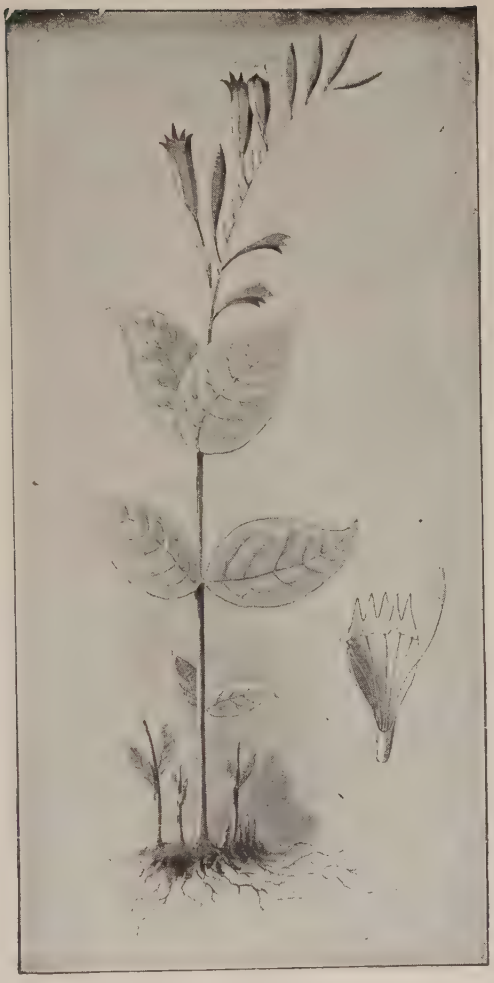
"The yerba reuma is the most positive remedy I ever found for the cure of catarrh, either acute or chronic."

It is also a valuable remedy for female diseases, and can now be found in all drug stores. See page 127 for its use.

CAMPHOR TREE (*Camphora Officinarum.*)

The Japanese Camphor Remedy Will Cure Any Cold as Soon as Taken.

The Japanese mode of ending *any and every* cold as soon as taken, or curing it in a few minutes, is one of the most valuable things ever published. It is done with the *Camphor Remedy,* which is always at hand and can be prepared in a few minutes in any house.



PINK ROOT. (*Spigelia Marilandica.*)

A Cure for Worms in Children.

Whenever children are troubled with worms, purchase at the drug store a few cents' worth of pink root, and you will never again have to pay any doctor's bills for this trouble. See page 564 for its use.

KIDNEY PLANT OR LIVER WORT. (*Hepatica Triloba.*)

There has perhaps been no vegetable product known that has been the means of curing so many cases of kidney disease as this one has.

The celebrated *Warner's Safe Cure for Kidney Complaint* has this plant for its main ingredient.

UNICORN ROOT. (*Alitris Farinosa.*)

An Invaluable Cure for Falling of the Womb. **See Page 595.**

Sexual Losses.—This plant is a complete specific for restoring sexual losses in all conditions. With this at hand no one need ever go to a physician for any of these troubles. It will save them many large doctor bills, too. It is also very valuable for other sexual purposes. For full directions see page 595.

WHITE POND LILY. (*Nymphoea Odorata.*)

Women who are afflicted with ulceration of the womb, need never again undergo the unpleasant, humiliating and painful examinations of physicians, as they can be effectually cured in *any* case with the white pond lily. See page 423.

GARDEN SAGE. (*Salvia Officinalis.*)

This is an old and reliable cure for night sweats, and is valuable in many other diseases. See page 250.

FLAX. (*Linum Usitatissimum.*)

I cure all cases of constipation with Flax Seed.—Dr. Suda

See page 124 for its use.

HOPS. (*Humulus Lupulus.*)

A Cure for Sleeplessness.

Hops is one of the most effective and harmless remedies in use for curing sleeplessness. See directions on page 540.

Kidney Complaint.—We have found hops to be a cure for the worst chronic cases of kidney complaint. Drink freely of the tea, four or five times daily.

Sick Headache.—In many of our hospitals a decoction of hops is used for curing sick headache in preference to any other remedy. See page 540 for direction for preparing the same.

DANDELION. (*Taraxacum Dens Leonis.*)

The dandelion remedy will cure liver complaint when all other means fail. See page 226.

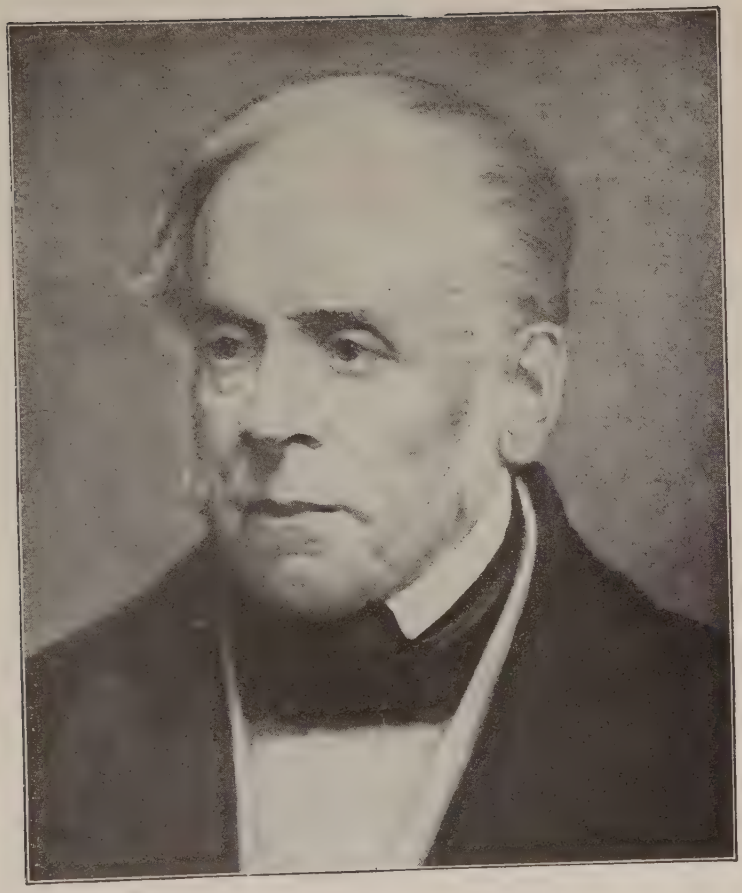
WILD YAM. (*Discorea Villosa.*)

There is no known remedy that equals wild yam for the cure of appendicitis.—Dr. Asada.

CHITTIM BARK. (*Rhamnus Prushiana.*)

A Positive Cure for Constipation.

Chittim bark surpasses every other medicine for this trouble that has ever been discovered. The demand for the remedy has become so great that it is now kept in all drug stores. See page 123



DR. JOHN MASON GOOD.

This celebrated English author and physician in his last contribution to the Medical Magazine writes: "Medicine has destroyed more lives than war, pestilence and famine combined."

He further says: "A good motherly old lady is more valuable in a family of children than any physician."

(Wouldn't Vitalogy be of more value in a house than any two old ladies?—EDITOR.)

DR. F. MAGENDIE.

This celebrated physician and author, in one of his published *lectures,* writes: When I was chief physician at Hotel Dieu Hospital, Paris, some 3,500 patients passed through my hands during a year. Before my term expired I tried the experiment of giving one-half of the patients that were then present no medicines at all; the rest the usual medical treatment. The former were given, instead, only what is known as "Food and Home Remedies," and, to my unbounded surprise, they *all* got well—not a single death; while among those receiving medical treatment the customary number of deaths occurred. A second trial yielded a like result, and I was converted. Ever since I have given but little medicine to my patients.

DIVISION ELEVEN

FOOD AND HOME REMEDIES

"Disease is caused by a violation of Nature's laws, and the only way to get rid of it is to return to those laws. Nature has for her remedies only a small number. They are diet, air, sun, water, food and home remedies, and exercise; all fully taken up in VITALOGY."

Alum—Excessive Sweating. A weak solution of alum in alcohol, toilet water or plain water—say as much powdered alum as you can take up on a dime, to two ounces, makes an application for excessive sweating of the hands, feet or armpits, sponged or brushed over the affected skin and allowed to dry on.

Canker Sores—Some persons subject to canker sores in the mouth prefer touching each sore daily with a bit of alum.

Chilblain—Bathing the feet with a water solution of alum of the strength suggested for sweating is often a relief for chilblain.

Ingrowing nail—Powdered alum may be kept dusted in the groove between the nail edge and the skin in a so-called "ingrowing nail." The nail is not growing in, but the soft tissue has been pushed against the nail edge by narrow, ill-fitting shoes, so that inflammation of the soft tissues has occurred. When this inflammation progresses to the degree of granulation ("proud flesh"), in the groove, the granulated tissue must be discouraged or shrivelled or removed, for skin will never grow up hill. Alum restrains it as well as any other application, and if the pressure by improper footwear is avoided, the trouble will often disappear.

Speakers and Singers' Sore Throat—A solution of half an ounce of alum in a pint of water sweetened with honey or gylcerine or both, makes a good gargle for low-grade chronic sore throat. Speakers and singers troubled with a huskiness of the voice, have praised the following gargle:

Potassium chlorate	2 drams
Boiling water	4 ounces
Powdered alum	1 dram
Stronger rose water	2 ounces and 5 drams
Glycerine	½ ounce
Syrup	½ ounce
Fluid extract of red gum	3 drams

The potassium chlorate should be dissolved in the boiling water, and set aside to cool. The alum should be dissolved in the rose water, and then the other ingredients added in order. This may then be mixed with the part set aside. The result should be a clear, ruby liquid of agreeable taste and odor. The official name for the

red gum is Eucalyptus rostrata. If that can not be had, two drams of fluid extract of Kino may be substituted for the three drams of red gum.

For use, add a tablespoonful to a tablespoonful of water and gargle once or twice within half an hour before speaking or singing.

Apoplexy—In a fit of apoplexy one must act at once, as the patient is often beyond hope before the doctor can reach him. Cords should be bound around the thighs and twisted as tightly as possible, and the thumbs of the person aiding should be pressed firmly on the angle of the lower jaw about half way from chin to ears. This stops the free flow of blood to the head. See Fig. 8. Page 29.

Bed Sores—Beat up the white of an egg and cover the surface. This will allay inflammation and promote recovery.

Bilious Colic—A teaspoonful of common baking-soda dissolved in half a teacup of water, taken at the commencement of an attack, will generally afford relief.

Bleeding of the Nose—Allow the nose to bleed freely for a few minutes to clear out the head. Then tie a cord tightly above the second joint of the little finger on the left hand. About the time the finger becomes a little numb the nose will have stopped bleeding. Remove the cord at once. This was successfully tried within the last few years by several people who had suffered for a long time from nose bleed.

2. Apply a piece of cold metal or ice to the back of the neck. This will stop bleeding of the nose when all other means fail. See Fig. 15.

3. Sit down before a low table. Place the elbows on the table. Grasp the nostrils with the thumb and under finger of the left hand so as to completely close them. Breathe through the mouth. Lean well forward. Hold the forehead in the right hand. Keep this position until the nose has filled with blood and the blood has clotted firmly. Gradually and slowly release the pressure on the nostrils. Leave the clot in the nose for several hours, if possible.

Blood—To stop flow of. Alum will stop the flow of blood almost instantly in cases of ordinary wounds. It is to be used as follows: Dissolve a heaping teaspoonful of powdered alum in a teacupful of water and apply with a piece of cotton cloth.

Blisters—When caused by perspiration, blisters may be relieved by the application of spirits of camphor on a piece of cheesecloth. Genuine blisters should be painted with collodion to protect them from the air and the friction of the hose. To prevent them, paste a strip of velvet inside the back of shoes, or an army preventive is to rub a little soap on the stocking. Sprinkling stearate of zinc between the toes will give permanent relief from cracks in the flesh.

Boils—Equal parts of sublimed sulphur and pulverized camphor, to which add enough glycerine to spread easily. The boil is then covered with a piece of linen on which this ointment has been

spread. Afterward the entire region of the eruption should be sprayed with a solution of equal parts of carbolic acid and water, four times a day, after the boil has been carefully washed with boric acid water. Then a dressing of the ointment is again applied.

Boric Acid—Medical use of. Slightly more than half an ounce of boric acid will dissolve in a pint of boiled water. When all that will dissolve has been taken up the solution is said to be saturated.

A saturated water solution of boric acid makes a comparatively efficient, non-poisonous, non-irritating antiseptic solution for general purposes. As a *gargle* and *mouth wash,* boric acid solution is superior to any other preparation.

Eyes—For use as eye-drops, if a nonirritating antiseptic is needed for a time, as in acute conjunctivitis (inflamed eyelids) or injuries of the eye, the saturated water solution may be used, a few drops in the eye every hour or two, at a comfortable temperature. As an eye wash, the saturated water solution is usually diluted with its own volume of boiled water, and freely run through the lid sac or over the eyeball at about body warmth, as often as desired.

Hay Fever—This same diluted boric acid solution may be used as a spray for the nasal passages, and some victims of hay fever extol it as the best medicine for relief.

Sweating Feet—The liberal use of boric acid powder in the shoes will cure foul sweating of the feet. The feet of stockings may be saturated with boric acid solution and allowed to dry.

Wounds—Boric acid water solution may be used to moisten the hot moist compresses to render the dressing antiseptic, in case of boils or infected or supurating wounds.

Important—Boric acid will accomplish all that any of the popular but poisonous antiseptics can accomplish in domestic medicine, and every householder who reads this, is urged to clean house now before some dreadful mistake happens. Such mistakes can't happen when boric acid is the antiseptic relied upon.

Breasts—Swelled and sore. Boil a handful of garden camomile in one-half pint of water, and apply as a hot fomentation. This dissolves the knot, and the affected parts.

Bruises and Sprains—Bathe the affected parts with hot milk and arnica, in the proportion of nine parts of the former to one of the latter, and in severe cases immerse the whole limb in the solution. This is a new combination, but a very effective remedy.

Bunions—Bunions are the result of great pressure and friction on the joint caused by short shoes and stockings. The joint should be relieved of all pressure. If possible, a loose slipper should be worn to allow the toes to spread; then take a piece of adhesive plaster and bandage the great toe, bringing it into its natural position. This will relieve the inflammation and the bunion will gradually disappear. You can also paint the bunion with a lotion of two drams each of carbolic acid, tincture of iodine, and glycerine.

Burdock—Blood Purifier. Fluid extract of burdock I ounce, fluid extract of sarsaparilla, 1 ounce, fluid extract of yellow dock, 1 ounce, fluid extract of senna, 1 ounce, syrup 8 ounces, alcohol 2 ounces. Mix. Take one tablespoonful three times daily.

Burns—Apply to a burn, bruise or cut, the moist surface of the inside coating of the shell of a raw egg it will adhere of itself and heal without pain, or make a poultice of grated raw potatoes and apply.

Callouses—Callouses are a result of pressure on certain areas of the skin, the usual places on the feet for them being just above the ball of the foot and along the sides of the small toes. The exercises for broken arches will help restore the toes to normal. A more temporary but much quicker relief may be obtained by soaking the feet in warm water and salt, and then rubbing or scraping the hard spots with a pumice stone or heavy emery file. Apply a light coating of tincture of iodine to allay any inflammation. Ordinary surgeon's plaster should be put over the spots as a protector if the parts are very sensitive.

Camphor—Camphorated oil (or camphor liniment) is made by dissolving about an ounce of camphor gum coarsely powdered in about four ounces of cottonseed oil, sweet almond oil or olive oil. Stand in hot water until dissolved. The oil should be kept quite warm, the bottle tightly stoppered with a rubber cork lest the camphor volatilize. This camphor liniment is an excellent application for the chest, neck and bridge of the nose in acute colds. It should be the choice for young children in any case where mother or nurse feels tempted to resort to such harsh remedies as mustard or turpentine or other external medicaments which may burn or blister. Camphorated oil may be rubbed over the chest twice a day for a few days if necessary. Camphorated oil relieves the itching produced by certain plants, and some cases of simple pruritis (itching without apparent lesions of the skin).

Colds—Some persons experience much relief by inhaling camphor when suffering with cold in the head, and for this purpose it is best to smell a bit of camphor gum held in the hand. This is also a familiar old remedy for neurotic headache—the kind of headache one develops when some trial or ordeal is to be evaded.

Nervousness—Taken internally camphor gives a sensation of warmth in the stomach, stimulates the circulation mildly and acts as a mild sedative on the nervous system, producing a feeling of contentment.

Hiccough—A grain or two of gum camphor or five to ten drops of spirits of camphor may be taken internally for palpitation, hiccough, intestinal flatulence (gas discomfort) or neurotic fainting.

Liniment—By thoroughly shaking up about three ounces of camphor liniment (camphorated oil) with one ounce of aromatic spirits of ammonia one may prepare an excellent liniment with which to rub lame muscles and lame joints.

Neuralgia—The gentle rubbing of the forehead with spirits of camphor, or better, camphor dissolved in cologne water, relieves various kinds of neuralgia and headache.

Car Sickness—Take a sheet of writing paper large enough to cover both the chest and stomach, and put it under the clothing next to the body. If one sheet is not large enough, paste the edges of two or three together, for the chest and stomach must be well covered. Wear the paper thus as long as you are traveling, and change it every day if your journey is a long one. Those who have tried it say that it is a perfect defense.

Carrots—Carrots are excellent for the blood and for asthma. They should be eaten raw, but should be finely grated or ground in a food chopper. They may then be eaten as a salad with lettuce and dressing. They are also recommended for nervous patients, and should be very, very thoroughly masticated.

The carrot, when applied in the form of a poultice, is one of the best known applications for reducing inflammation and soreness in diseased parts.

Catarrh—Simple remedies are often more efficacious than pretentious ones. Try this: Obtain some boric acid powder and an ordinary glass nasal douche. Put a teaspoonful of the powder into a pint of hot water. When dissolved thoroughly douche the nose. After this is done, sniff a little of the powder itself up each nostril.

This should be done unremittingly night and morning, and it will not be long before the wonderful healing powers of the boric acid powder will be felt. Only one must persevere.

Prevention—Always breathe through the nose and especially avoid inhaling through the mouth in conversation or when going to sleep. It has been recently scientifically proved that catarrh results from impurities inhaled through the mouth. In the upper nostrils are filters which stop all these dust and disease germs, providing all the breath is drawn through the nose.

Cholera Morbus—Wring a cloth out of coal oil and apply to the lower part of the stomach, and at the same time take internally the salt remedy given on page 632. This will usually afford speedy relief.

Chilblains—1. Take equal parts of lime water and sweet oil. Shake well together and rub thoroughly on the afflicted parts, then saturate a cloth with the same and bind on the parts and put the stocking over it. Repeat a few times and a cure will be effected.

2. Plunge the feet frequently into cold water containing salt or a little ammonia, or bathe with kerosene oil. Dry thoroughly and rub gently. Dust with talcum powder. Do not wear woolen socks, and keep away from heat. Paint with two coats of iodine, allowing the first coat to dry before applying the second. Or wash the feet in a warm solution of washing soda and dry. Paint the affected area with two parts beeswax and three parts olive oil.

3. A teaspoonful of tincture of iodine well worked into a piece of lard the size of a walnut may be applied once only for chilblains, for which it is a valuable remedy, but if the skin is recently broken this would prove too painful.

Chills and Fever—Apply equal parts of spirits of turpentine and chloroform to the back of the neck and along the spine, also across the small of the back. Repeat thrice daily. This has cured many cases of chills and fever. See Fig 21.

Cold—To cure in thirty minutes. Any cold may be cured inside of thirty minutes, if the following simple remedy is promptly used:

Spirits of camphor .....10 drops
Hot water ..... 1 pint

Mix well and drink or sip all of it as hot as it can be swallowed. When through, the cold in most cases will already be gone, if not, remain where it is warm and the air is fresh, breathing deeply and holding each breath one-half minute, and the cold will vanish in a few minutes. A cold is the result of congestion of the capillary vessels (stoppage of the pores). This simple remedy opens the pores and cures the cold. If cold has affected the lung cells, the breathing exercise will force these open again and the normal condition be restored. *Caution*—The remedy must follow the exposure quickly, as it can not be expected to cure so speedily a deep-seated or chronic cold.

Cold in Head or Coryza—In some cases of acute coryza (cold in head) with sneezing a very watery running at the nose, watering and itching of the eyes and frontal headache, much relief is found from inhaling the fumes of iodine by breathing the steam from a pint of boiling water containing ten to twenty drops of tincture of iodine or by sniffing the fumes from the bottle held in the hand, the heat of the hand disengaging the vapor of iodine.

Cough—Bronchial. One ounce each of horehound and yellow dock, over which is poured a quart and a half of boiling water. Simmer for three hours, adding more water as it boils away. Strain, adding a pound and a half of sugar and boil to a syrup. A small tablespoonful may be taken several times a day.

Coryza or Cough—One ounce of citrate of soda, one ounce of glycerine and the juice of a lemon dissolved in a pint of flaxseed tea, flavored with three or four drops of peppermint. Dose, a tablespoonful every two hours for two or three days, for a child a teaspoonful is the dose.

Colic—Flatulent. Add one drop of oil of peppermint to half a glass of hot water and drink as hot as possible. It is seldom necessary to repeat the dose, as one dose will usually give instant relief.

For Colic or Bellyache—Hot applications, preferably moist heat, in the form of hot turpentine stupes for adults, that is, a cloth wrung out of water as hot as possible, with two or three drops of turpentine sprinkled on the cloth just before it is applied to the

belly, and a dry flannel over all. The cloth must be changed every few minutes, but no more turpentine should be applied. In the case of very young children, the turpentine should be omitted.

Corns—The best treatment for corns is going barefoot. If you can continue such treatment six or eight weeks it never fails to cause all corns to disappear. The next best thing is a solution of thirty grains of salicylic acid in half an ounce of flexible collodion. This is painted on the corn once daily for a week or two.

Constipation—Persons with a tendency to constipation are helped by using a diet in which bulky foods, such as celery, cabbage, asparagus, lettuce, spinach, onions, raisins, figs, prunes, and other fruits eaten with their skins, bran eaten as a cereal and in the form of bread, form a large part. In addition, some are helped by the use of agar-agar added to the dessert.

Diet—Use bran, fruit and vegetables in quantities, at least daily.

Others need vegetable acids, such as oranges, lemons, apples and fruit juices of various kinds. Others are helped by foods producing slight gas formation, such as spinach, onions, cauliflower, honey and molasses. Still others need a lubricant, and for them mineral oil or olive oil bring about the desired results. For those needing mineral oil, the Upham method is recommended—equal parts of oil and grape juice, with an ounce of mucilage of acacia to each pint of the mixture.

Many doctors who have made a special study of the subject, advise that two glasses of water (warm or cold) be taken immediately upon arising.

Massage for Constipation—Place the hands against the abdomen, with the heel at the side and the fingers extending horizontally toward the navel and middle line. Massage the small intestine by pressing with the fingers. Ten seconds later press deeply against the ascending and descending colon located on the sides, using the heel of the hands. Fifteen seconds later, repeat the pressure by the fingers, following with pressure by the heel of the hands. Continue slowly for five minutes. Some people use one cake of fresh yeast three times a day with advantage.

Flax for Constipation—From a teaspoonful to a tablespoonful of the unground flax seeds may be washed down with water, once or twice daily. This accomplishes satisfactorily the purpose for which expensive preparations like agar are much used nowadays—natural stimulation of the peristalsis (wave movements in the alimentary tube).

Olive or sweet oil for constipation. Especially beneficial for children is the use of olive oil or sweet oil, applied to the spine of the child at the points shown on the cut on Fig. 27. Renew the applications three times a day until the child is relieved.

Senna with Prunes and Figs for Constipation—This receipt does not call for cooking. Take a pound of dried figs and a pound of dried prunes, wash well. Remove the stones from the prunes,

and if very dry soak for an hour. Then put both fruits through the meat chopper, adding two ounces of finely powdered senna leaves. Stir into this mixture two tablespoonfuls of molasses to bind it together, the result being a thick paste. Begin by eating at bedtime an amount equal to the size of an egg, and increase or decrease as may be necessary. Keep the paste tightly covered in in a glass jar in a cool place. If the senna is distasteful, a smaller quantity may be used at first.

Cramp in Legs—Wrap a very large woolen blanket around the legs at night, and the cramp will soon stop. This has been tried with much success by a well known physician, who recommends it.

Cramp in Legs—In case of cramps in the calf of the legs, straighten out the limb and pull up the foot as far as possible towards the knee. It stops the cramps at once. Keeping the limbs warm is fine, but some cannot wear woolen next to their skin in bed. Silk and wool hose are best.

A wonderful remedy for acute pain in nerves of arm or side or throat is:

1 ounce, vaseline. ½ ounce, oil sassafras.
½ ounce, oil origanum. 10 drops, foreign mustard.

Apply with finger tips. Have a hot flannel cloth (pure wool) ready to cover painful surface. Keep from the air.

Croup—Dr. Takari writes that he has had remarkable success is curing croup by the use of fat bacon. Large slices of very fat bacon are laid over the bare throat and bound on with a woolen cloth—a woolen sock or stocking is good. This will relieve the patient at once and is often sufficient to effect a cure. If not speedily effective give at the same time internally, five to fifteen drops (according to age) of kerosene oil on sugar.

Croup—Apply, without rubbing, refined oil of eucalyptus, about one-half teaspoonful, over the chest. Cover with a cotton jacket and this with heavy wrapping paper. Give dose according to age every two hours and a dose every time they cough. If that doesn't help, give another dose.

Croup—Another remedy for croup is salt and vinegar. The vapor fumes of this combination seem to possess the power of dissolving and loosening the false membrane in the throat. The remedy is used in the following manner. To a quart of strong vinegar add a pint of salt. Saturate a woolen cloth with this solution, keeping it constantly hot, and hold to the mouth so the vapor and heat can be inhaled from it. Another form is a tent made by opening an umbrella and throwing a sheet over it, and placing the spout of a tea-kettle so that the steam will fill the inside of the tent-like affair.

Diabetes—Insulin for. Insulin is used as a cure for diabetes. It was originally discovered in the pancreas glands situated at the bottom of the stomach near the vertebrae of certain animals. The discoverer of this remedy is Dr. Frederick Grant Banting of Canada.

Gluten Bread for Diabetes is a variety of nonstarch-containing bread for use by diabetics. It is made as follows: Take 1 quart of sweet milk, or milk and water, 1 heaping teaspoonful of good butter, 1/5 of a cake of compressed yeast beaten up with a little water, and 2 eggs well beaten. Stir in the gluten flour until a soft dough is formed, knead as in making ordinary bread, put in pans to raise, and when light, bake in a hot oven.

Diarrhea—This distressing complaint may be cured without remedies by confining the diet absolutely to liquids. Toast water and rice water form the best and most nutritious diet for those who do not like milk, or with whom milk does not agree. Brown the toast thoroughly through and through, but do not burn, and pour boiling water over it. Let stand an hour or more and strain off the water. Drink of this freely. For rice water, place one-half teacupful of rice in three quarts of water, boil one hour. Strain off the water and drink freely of it every hour or two. For milk diet see page ——.

Mild Diarrhea—Mustard plaster to pit of stomach at night. Do not blister. Very light diet. Half ounce of castor oil at night if no vomiting. Ten grains of subnitrate of bismuth, with one drachm tincture of ginger in hot water, or five grains each time bowels move.

Diphtheria—At the first indication of diphtheria, make the room close; then take a tin cup and pour into it a quantity of tar and turpentine, equal parts. Then hold the cup over a fire so as to fill the room with fumes. The patient, on inhaling the fumes, will cough up a membraneous matter. The fumes of the tar and turpentine loosen the matter in the throat, and thus afford the relief that has baffled the skill of physicians.

Dyspepsia—Pineapple Cure for.—Scientists has discovered of late that the juice of the pineapple contains a digestive principal very much like pepsin, the action being the same, and it is recommended as a cure for dyspepsia. It has been found that the juice acts upon the casein of milk just as rennet does, and the experiment has been tried by placing a slice of raw beef between two thick slices of fresh, ripe pineapple, and the character of the beef has been completely changed within three to four hours. The action of the juice, like pepsin, is digestive. The juice only should be swallowed, and the cellular pulp removed from the mouth. Pineapple should be eaten with salt in place of sugar. The sugar with the acid makes a bad combination.

Dysentery—One-half pint of the seeds of the plantain, boiled in one quart of milk and drunk freely, will cure either dysentery or flux.

Ear—To cure running of. Drop in the ear three times daily two or three drops of a solution of ten grains of boric acid in an ounce of alcohol.

Ear—Objects in. An insect in the ear may be removed by turning the head to one side and filling the ear with warm sweet oil. The oil will suffocate the insect and it will float out. Never use sharp instruments on the ear.—U. S. Public Health Service.

Eczema—1. Sulphur and cream is a specific for this disease. Add sufficient sweet cream to sulphur to make a thin paste and apply to the affected parts, both morning and evening. In a few days a complete cure will be effected.

Remedy—2. Yellow Dock Root, 1 ounce; Blood Root, 1 ounce; bruise well and put into ½ pint of good vinegar. Let stand three or four days, and then use as a wash for affected parts morning and evening. After which apply the following salve:

Fresh unsalted butter	1 ounce
Turpentine	1 ounce
Burgundy pitch	1 ounce
Red precipitate	2 drams

Melt pitch and turpentine together; after it is cool add the butter and red precipitate and mix well. This is a very superior remedy for curing chronic cases of eczema.

Eczema of Hands—About one-half of the causes of eczema of the hands are due to the occupation. What is there in your occupation that could cause eczema? Do you handle dogs, cats, horses, fowl? Do you have your hands in water too much, or oils or dust? If you can find what it is, avoid it. About one-third of the remaining causes are due to diet. The food responsible in a given case may be entirely wholesome for others. Either experiment by ceasing to eat one food at a time, until you find which is causing the eczema. Having found the food causing the eczema, avoid it.

Eczema—Itching of. Apply to the area involved a hot solution with soap as hot as can be tolerated, then apply a compress of Bay-rum. Bay-rum is superior to alcohol.

Erysipelas—White navy beans are a sovereign remedy for Erysipelas. They should be boiled until soft and applied in the form of a poultice. The poultice must be applied warm and frequently changed. If taken in time it is almost infallible.

Eye Glasses—When people who wear glasses go out into the open air in very cold weather, especially on windy days, the part of the face touched by the metal of the glasses is apt to get painfully cold. If a little cotton or wool is fastened with adhesive tape so that it prevents the metal from touching the skin, this discomfort can be avoided.

Fainting Shocks—The best and quickest stimulant to administer for fainting or shock or collapse from any cause is from ½ to 1 teaspoonful of aromatic spirits of ammonia in about a wineglassful of cold water, provided the patient will drink when the glass or cup is brought to the lips. If the patient can't or won't drink, pour the aromatic spirits on your handkerchief or hand and let him inhale the fumes.

Feet—Cold. 1. Fresh lard 4 ounces, cayenne pepper ½ drachm. Rub together for 10 or 15 minutes. Of this apply one-fourth to one-half teaspoonful to the bottoms of the feet. For the first ten days apply every other night, after which less frequently, and before the whole has been used, the object will have been accomplished. This is the best remedy I have ever found. Bathe the feet in warm water before the remedy is applied.—Dr. Jennison.

2. This is a very simple but good remedy for people who are troubled with cold feet during the winter: Take some tissue paper and wrap all around feet, then put on stockings and shoes. By doing this the tissue paper will keep the feet warmer than hair soles.

3. Wear loose, warm stockings and loose, warm, waterproof shoes. Grease your feet well and frequently. When the soldiers in the trenches in Flanders could do no better they pulled open the shoe top and poured fish oil down inside of the shoe.

Perspiring—1. Use alum or vinegar or camphor in the daily warm footbath and then rub with tincture of myrrh or Bay-rum in drying the feet.

2. Put about four eyelets on each side of the shoes just under the instep. In walking the foot acts as a bellows, producing a free circulation of air, and usually giving relief.

Tired, Aching or Swollen—If you suffer from tender feet you should take a cold foot spray every morning and every evening. Get the tonic effect of the full pressure of the cold water from the faucet upon the feet. Dry the feet thoroughly with a Turkish towel, paying special attention to the space between the toes. Rub the feet with alcohol and powder them with boric acid. Tender feet may be rubbed to advantage with witch hazel to which spirits of camphor has been added, one or two tablespoonfuls to four ounces of witch hazel. It is also beneficial to rub a little olive oil into the feet after the bath. Alcohol or vinegar is soothing to tired, aching, sore feet. Common baking soda also affords relief.

Feet Burning—On retiring. Smear the soles and over the toes with petrolatum (petroleum jelly). Then wind some cotton batting about the feet and put on a pair of light hose.

Fever and Ague—In some parts of the Southern States cotton-seeds are reputed an excellent remedy for fever and ague, by boiling one pint of the seeds in three pints of water down to one pint. One-fourth to one-half of this to be drunk warm one hour before the expected return of the chill. This is generally sufficient.

Flies—To keep away. No fly, it is said, will enter a room where wreaths of walnut leaves are hung. The experiment is worth trying.

Glycerine—Glycerine is made by decomposing and distilling fats. It has an affinity for water, and mixes freely with water in all proportions. Glycerine, applied pure, absorbs water from the skin and sometimes sets up irritation and a rash. Taken internally it is a cathartic, acting like salts, by extracting water from the

lining of the stomach and bowel, and so irritating these organs as to excite peristaltic movement. It is sometimes used as a sweetening agent when sugar can not be taken. It is a good solvent for many substances which do not freely dissolve in water, and it is a preservative for water solutions of medicines which tend to spoil on standing in such solutions.

Ear Ache—A drop or two of glycerine in the ear each day will soften and aid in the removal of hardened masses or wax, which sometimes causes such troubles as head noises, dizziness, yawning and harsh cough. As a rule, glycerine should be used instead of oils in the ear for earache, because it does not dry out and accumulate in the ear canal as oils may do. An excellent treatment for acute earache, even if it be inflammation or gathering in the middle ear (otitis media), or furuncle (boil) in the outer ear canal, consists of gently inserting in the canal thin wicks or gauze soaked in glycerine as hot as bearable. A fresh application every half hour.

Sore Mouth Wash.—A mixture of equal parts of glycerine, water and lemon juice is an excellent mouth wash in sickness when the month becomes sore and dry, and coated tongue.

Canker Sore—Probably there is no better treatment for common canker sores in the mouth than (1) touching each canker sore once daily with equal parts glycerine and iodine, (2) discontinuing brushing the teeth and (3) rinsing the mouth carefully before and after eating with a saturated water solution of boric acid at about body warmth.

Tonsils—The daily application of glycerine to enlarged tonsils will reduce them to normal in some cases in children.

Grape Juice (Tonic)—Into a half-gallon fruit jar place three cups of ripe grapes that have been washed and stemmed and one cup of sugar; fill with boiling water and seal. No crushing of grapes, straining nor boiling of juice. The grapes pop open, the liquid has no tang of bitter and no sediment, but pours off clear and of fine flavor. Be sure bottles are air tight.

Hay Fever—"There has been no cure found and I know of only one relief. That is witch hazel. When a spasm comes on causing sneezing, I fill the hollow of my hand with witch hazel, then put my nostrils into same and draw up with full force. It immediately cleans out the parts affected and kills the germs that have gathered on the membrane. Repeat every time spasm comes on. It is severe for a few seconds, but it does the work.

"I use the witch hazel just as it comes from the drug store."—Dr. Caswell.

Headache—Nervous. 1. To a teacupful of water add one teaspoonful of the essence of peppermint; saturate a cloth with it and apply to the head and temples. For many persons this will give very quick relief. As soon as the cloth becomes dry, wet it again.

2. Wet a cloth with spirits of camphor and sprinkle it over very thickly with black pepper, and apply to the forehead and temples. If relief is not soon obtained, renew the application, or at least wet the cloth again with the camphor.

Headache—1. Wet a bunch of cotton or a piece of cotton cloth with camphor, roll it up and apply it in the form of a compress, to the back part of the head and the base of the brain. By means of a long strip of cloth carried over the top of the head, bind the compress very firmly in place; when it drys, saturate it again with the camphor, though one application will generally cure the worst form of headache, especially when it occurs in the back part of the head. See Fig. 12.

2. Dr. Watson of Chicago cures the severest pain in the back of the head by throwing the head back as far as possible on the collar, or back of a chair, and sometimes aiding this by walking backward around the room for five or ten minutes.

3. The old remedy of brown paper wet with vinegar, and black pepper sprinkled upon it and applied to the forehead and temples for ordinary headache will usually afford relief with most persons.

Heat Prostration—Have a doctor sent for immediately. If patient feels hot when you put your hand on him, cool him off. If patient feels cold when you put your hand on him, warm him up by wrapping him in blankets, giving him whisky or a few drops of aromatic spirits of ammonia in water.

Do not rely on what he says about his condition, as a man may be actually burning up with fever, as you can find by putting your hand on him, and at the same time he may say he is very cold, his teeth may be chattering, and his lips may be blue.

Heart Disease—Apply to the heart a cloth wet with hot water. If at hand, add a tablespoonful of mustard to the water (one quart). If this is applied in time it will resuscitate many persons when apparently dead, and who would otherwise have died. See Fig. 13.

Health Diet—When indigestion or other troubles have impaired the health, the thing to do is to banish forever from the dietary about one-half of the accustomed meats and vegetables. Substitute for them fruits of every kind in their season, and nuts.

Hiccough—Many cases have been stopped by putting a few drops of oil of cassia on the tip of the finger and placing it on the tongue as far back as possible.

Hives—1. Cosmoline applied to the surface of the skin two or three times a day will cure all scaly eruptions of the skin characterized by itching or burning.

2. Take baking soda, size of a dime, in a wineglass of water night and morning for three or four weeks. This will cure hives.

3. Very weak solutions of ammonia in water will relieve the itching of hives and similar affections of the skin—a tablespoonful of aromatic spirits of ammonia in a pint of water, sponged on the skin without friction.

Hoarseness—A speedy and very satisfactory cure for hoarseness is to gargle the throat with a mixture of glycerine and warm water, half and half.

Impetigo—This skin disease affects the face, neck and hands, less often the body and scalp. It can be recognized by a raising of the skin over the infected area with the gathering of fluid underneath. The skin is covered with thick, dirty, yellowish or brownish crusts. When opened or scratched and broken, this fluid escapes, and may spread the disease to the parts it touches. Impetigo is contagious and spreads by scratching as well as by use of towels. Apply antiseptic applications of a mild nature.

Indigestion—1. An attack of indigestion can be very qnickly cured by the following simple means. Fold a cloth (woolen is best) four or five thicknesses, heat on the stove—or, better, in a steamer over the stove—apply hot, and renew with another application in four or five minutes, or as soon as cloth becomes cool. See Fig. 19.

2. The latest and best known remedy for indigestion is papoid or vegetable pepsin. It is made from the plant known as papoidin, or the pulverized extract may be purchased of any druggist. The dose is one grain immediately after meals. If there is any tendency to sourness in the stomach, add to one grain of the papoid three grains of bicarbonate of soda.

3. Use a strictly fruit diet for three days and you will marvel at the good effects. A fruit diet means four meals a day—at each meal as much fruit as you can relish, and of such variety as is convenient. Eat nothing else. A modified fruit diet means fruit exclusively for two meals, and for the third, fruit, grains and nuts. Never use vegetables with a fruit diet. Omit one or the other. An occasional strictly fruit diet is worth more than an ocean of medicine to secure bounding health and strength.

Insomnia—To cure without medicine. This new and simple method has not failed in a single instance. The remedy is found in *rhythmic breathing*. When time comes to go to sleep, begin breathing long, regular breaths in unison with some regular sound like the ticking of a clock, or keep exact time with the breathing of some one sleeping.

Insect Bites—Most insect stings or bites are relieved by touching with a drop of aromatic spirits of ammonia.

Itch (Barber's)—A contagious vegetable parasitic affection, attacking the hairs and hair follicles of the bearded region. It is characterized by postules perforated by hairs and by large, lumpy tumefactions. The hairs are broken and easily extracted and the roots are usually dry. The upper lip is hardly ever attacked. Treatment consists in daily washing the affected parts with soap and hot water. Then apply the following ointments:

1. Plain vaseline 4 ounces, sulphur 2 ounces, sal ammoniac, powdered, 2 drachms.

2. Plain vaseline 2 ounces, Venice turpentine ½ ounce, red precipitate ½ drachm.

For No. 1—Mix and apply daily, after cleansing the part thoroughly with castile soapsuds.

For No. 2—Apply in same manner. Great care should be taken not to expose affected parts to cold draughts while ointment is in use, especially if the affected surface is large.

Itch—Lard 7 ounces, soft soap 7 drams, precipitated sulphur 7 drams, Balsam of Peru 7 drams, Beta napthol 2½ drams. These ingredients are to be so thoroughly mixed that no particle can be felt with the fingers, and the entire amount of ointment is to be rubbed vigorously with the hands and fingers into every inch of affected skin. It is best beforehand to take a thorough hot soap and water scrub, scrubbing to the limit of tolerance, then rinse and dry the skin well before applying the ointment freely. Wear gloves and stockings on going to bed. Take an ordinary cleansing bath in the morning. Repeat the whole business every alternate evening for three or four times—and everybody in the house must do the same if at all infected. When the treatment is completed, not before, all underwear, night clothes and bed sheets and pillow cases must be boiled or otherwise sterilized.

All this naturally arouses some irritation of the skin, which subsides in a few days. If the treatment is thoroughly applied, it will absolutely cure the itch.

The secret of success in treating itch is in thorough application and close attention to details. Unless the bugs in the clothes are killed by heat at the time those in the skin are killed, the trouble will start over.

Kidney—Asparagus as a medicine. 1. Asparagus acts quickly on the secretory organs of the body, especially the kidneys. One effected with gravel will be greatly benefited and relieved by eating asparagus prepared in water, and eaten without dressing. This is a wonderful tonic to the kidneys as well as to the entire system; try it.

2. Make a tea of liverwort or kidney plant (hepatica triloba) and drink it freely four or five times a day until cured. The herb is harmless, and from a half to a teacupful may be taken at a dose.

3. Give an adult one teaspoonful of sweet oil before each meal. This acts like a charm in cases of this disease where it is attended with burning in the urinary passages. The olive oil is especially recommended, because it is more pleasant to take than the other.

4. The Indians cure this disease with common malva (cheese weed). They make a tea of it and drink it three times a day.

La Grippe—Influenza. Dr. L. E. Keeley says that asafœtida will cure the worst cases of La Grippe, not only in its primary form, but will break up many of the complications arising from it. It is as absolute a cure for this disease as quinine is for chills and fever. It is administered in the following manner:

1. Take a four grain pill every three hours until four pills have been taken. Repeat this treatment for four or five consecutive days, unless a cure is effected sooner. Asafœtida is becoming a popular remedy for this disease in rural districts. For a dose they usually take a pill three times a day, the size of a grain of wheat. Sugar coated asafœtida pills can now be had at drug stores.

2. A strong tea of mountain sage, drank freely three times a day, has been employed very successfully in the cure of this disease.

3. Red pepper has lately proved to be a panacea for La Grippe. It is to be used as follows: Take a red pepper pod (or a teaspoonful of ground cayenne pepper), pour over this one-half pint of boiling water and let steep like tea. Pour off the liquid into a bottle. Dose: A tablespoonful of the liquid in a cup of hot water. Sip slowly. Some can take it much stronger than others. To be taken before each meal and on retiring at night. In severe cases take every three hours.

4. Sprinkle sulphur in your shoes to avoid catching the grip, is the advice of Dr. George Angel. Years ago, when the epidemic of grip swept the country, Dr. Angel recommended at the time that everyone wear sulphur in the shoes as a preventive, the discovery having been made that the miners employed in the sulphur mines were immune from the disease. The discovery led to experiments which were said to indicate that sulphur prevented the disease, and but a few mild cases developed where sulphur was worn in the shoes.

Leeching—A method of withdrawing blood by means of blood-sucking worms or leeches, or a specially constructed apparatus known as the artificial leech. This procedure is indicated in certain inflammations, particularly of the eye and ear. The skin over the selected locality should be carefully cleansed, especially should all traces of soap and of such pungent medicaments as turpentine or liniments, be removed, otherwise the leeches will refuse to bite. A little blood or milk smeared upon the skin will often induce leeches to take hold. Leeches should not be applied where the skin is delicate or loose, as on the eyelids or scrotum. To remove a leech easily, apply a small quantity of table salt to it.

Leucorrhea, or Whites—Use an injection each evening of a teaspoonful of Pond's Extract or Witch Hazel, in a cup of very warm water, after first cleansing the parts by means of an injection of warm water. This is a very effective remedy.

Lice and Nits.—1. Saturate hair and scalp with kerosene. Put on a rubber cap or tie a cloth over the head and leave for thirty minutes, being careful to keep away from flame of any kind. Then shampoo with soap and water, rinsing several times in clear water as hot as can be borne; then a rinse of hot vinegar, and a final rinse of clear, hot water. Dry. Rub vaseline on the hair and scalp and comb with a fine tooth comb.

2. Use ten cents' worth of red precipitate mixed with fresh lard. Make into a salve and rub well into the scalp. Cover the head with a cloth each night for two or three nights, while using this salve, and shampoo after the last treatment.

Lime-Water—How to make. A bottle of this should always be kept prepared for use. It is not only desirable as an antidote to many poisons, but it is valuable as a remedy in various diseases (given in different parts of the book under their appropriate heads). It can be made by taking a piece of unslaked lime (the size does not matter, because the water will take up only a certain quantity), put it into a bottle and fill with water. Keep it in a cool place with the bottle corked, where it is dark—such as a cellar. When the water is exhausted, fill the bottle again. This may be done three or four times before renewing the lime.

Liniment—One pint of alcohol and as much camphor gum as can be dissolved in it, half an ounce of oil of cedar, one-half ounce of oil of sassafras, aqua ammonia half an ounce, and the same amount of tincture of morphine. Shake well together and apply by the fire; the liniment must not be heated nor come in contact with the fire, but the rubbing is to be done by the warmth of the fire. This recipe is an old, reliable one and is more effectual than many of those advertised, having been thoroughly tried, and beside is inexpensive to make.

Liniment—Arnica. Add to one pint of sweet oil two tablespoonfuls of tincture of arnica. Good for wounds, stiff joints, rheumatism and all injuries.

Liver—1. *Spinach* is very good indeed for the liver. In sanitariums where especial attention is given to the diet, spinach holds a high place on the bill of fare. It is particularly recommended for persons who can take very little starchy food.

2. *Tomatoes* are perhaps the best vegetable for the liver. They act directly upon that organ, for they contain large quantities of vegetable calomel. When used medicinally they should be eaten raw, except the skin, as the latter is indigestible.

Liver Spots—Brown spots over the skin are an indication of an inactive liver, of anemia, or any one of half a dozen other disturbances. Plenty of fresh fruit, vegetables and an added allowance of water in the diet, all help to improve this condition. Sometimes a local irritation, such as a tight hat-band or choker, may cause the spots, but generally the marks are an outward evidence of an internal derangement. The following lotion should prove of assistance in removing the spots, and should be applied to spots only: 1 drachm boric acid, 1 ounce witch hazel, 1 ounce cologne. Mix.

Malaria—Consists of a series of febrile attacks, which may come on every day, every second day, or every third day. Later it assumes a chronic form.

Treatment—1. Calomel given in two doses, one grain each, one hour apart, is found to be valuable.

2. Quinine sulphate given in doses of five grains each, every three hours, is recommended highly.

3. Five drops of Fowler's Solution three times a day for a couple of weeks.

The following mixture is excellent when the fever is high: Fluid extract of Gelsemium ½ dram in 4 ounces of water. Dose: One teaspoonful every hour for a few doses, then every two or three hours until fever subsides.

Syrup of figs is excellent for children in doses of one-half to one tablespoonful, as it keeps the bowels open.

Medicine Chest—Nothing that requires a poison label should ever be kept in the family medicine or first aid chest; if, indeed, there is any justification for having poison in the house at all. Following is a list for the family medicine cupboard and emergency kit: One ounce tincture of iodine, 2 ounces aromatic spirits of ammonia, 1 ounce syrup of ipicac, 1 ounce of turpentine, 1 ounce sweet spirits of nitre, 4 ounces glycerine. 4 ounces aromatic syrup of rhubarb, 1 ounce flexible collodion, 4 ounces boric acid, 1 ounce powdered alum, 1 ounce powdered camphor, 4 ounces olive oil or sweet almond oil, 2 ounces powdered mustard, 2 ounces sodium citrate, 4 ounces milk of magnesia, 1 or 2 one-ounce collapsible tubes of sterile petrolatum (vaseline), 1 four-ounce carton absorbent cotton, half dozen one-yard folds of sterile gauze in sealed envelopes, one-half dozen bandages, 1, 2 and 3 inches; spool of zinc oxide adhesive plaster, five yards, one inch wide, 1 tin of Seidlitz powders; liniment.

Menses—Regulation of. Baking soda 2 ounces, citric acid 2 drams. Make in five grain capsules. When used, take one, remove the end, after which place the finger over it and insert as far as possible. To be used before retiring.

Menses, suppressed. Take a five grain capsule of cayenne pepper. If from cold or any cause the stoppage is anticipated, take the capsule on the day that the menses should make their appearance.

Mosquitoes—Banish. 1. Sprinkle a little brown sugar on some hot coals in room; it will banish these unwelcome intruders for the night.

2. These pests have a great dislike to the odor of the oil of cinnamon or cloves. Mix one-half teaspoonful of the oil (not the essence or spirit) with an ounce of spermaceti ointment and rub it upon the face and hands.

Mountain Fever—This form of fever rarely occurs except at altitudes above 2,500 feet. The symptoms are languor, loss of appetite, constipation, yellowish tongue, hot and dry skin, scanty urine, fast pulse and temperature from 101 degrees to 104. The symptoms intensify the first three or four days, and the fever runs its course in three or four weeks. The treatment should be similar to that in typhoid fever. Diet should be confined to soups, broths, milk and soft boiled eggs.

The remedies given by the best mountain doctors are: Aconite 20 drops, pleurisy root 1 dram, water 4 ounces. Take a teaspoonful every hour. Or, Podophyllin 20 drops, golden seal 1 ounce, water 4 ounces. Teaspoonful every 2 or 3 hours.

Mustard—Plaster that will not blister. In making a mustard plaster, mix lard with the mustard, instead of the whites of eggs, and it will not blister as mustard plasters usually do. Use just enough lard to make the mixture spread easily. Then spread thin on brown paper.

Neuralgia, Japanese—Cure. Black pepper and the white of an egg will cure neuralgia. Mrs. Cora L. Jackson of St. Louis, Mo., who had been a victim of neuralgia for nearly a year and had been treated in vain by the best medical skill obtainable, often resorting to chloroform to alleviate her severe pain, when almost in despair was told that a Japanese physician in San Francisco, California, could cure her of the disease. She went there at once. On arrival she was assured by a friend that the remedy was simple and effective. A neighbor had recently been cured of neuralgia by this doctor. She applied it as directed, and the next morning said she felt like a new being. For the first time in months every particle of pain was gone.

The mode of using is to wet one side of a piece of cotton cloth with the white of an egg, sprinkle over it the best quality of black pepper until the egg is colored almost black, then bind it over the effected parts. When the disease is in the head, bind it on the temple and another small application (without the pepper) back of the ear. One application will effect a cure. (See Fig. 11.)

Nervousness—Celery cure for. Those who are troubled with restlessness and loss of sleep caused by nervousness should know of the value of celery seeds to the system. A few seeds eaten three or four times a day will do much toward quieting the nerves, and if taken a half hour before retiring will cause more restful slumber.

A tablespoonful of celery seeds boiled from three to five minutes in a pint of water, and a half teacupful of this liquid taken prior to meals, or before retiring, will act like a charm on the nerves, and will give the person the needed rest. The liquid may be flavored if the celery taste is not desirable. Celery oil made from crushed celery seeds and applied to the spine is an excellent tonic for the nerves. It reaches the spinal cord and is very soothing.

Buttermilk for Nervousness—"Buttermilk has been found to be practically a specific for nervousness. Take it any time, but especially at bed time, as it produces calmness and sleep. Practically everything else has been tried, but buttermilk is the best of all. It is worth almost any price, and should be pure as possible."—Dr. Hill.

Nervous Prostration—Two grain pills of asafœtida taken three times a day cured Miss Maud Jones, in Chicago, after two physicians had abandoned her case as incurable.

Piles—1. Senna 2 ounces, cream of tartar 1 ounce, sulphur 1 ounce, syrup of ginger enough to make a stiff paste. Mix. A piece as large as a hickory nut is to be taken as often as necessary to keep the bowels open. This is one of the best remedies known.

2. Dr. Beckwith of Chicago says: "The simplest and most effective remedy for piles that I have found is the simple extract of Canada Pine, sold in all drug stores as Pinus Canadensis. Ten cents' worth of the black Pinus Canadensis will cure any case of piles. Apply with finger twice a day, or oftener, if convenient.

Pleurisy—The worst cases of pleurisy can be cured by applying a small sack of browned salt to the lower part of the shoulder blade on both sides. Apply hot and keep hot by renewing. This remedy is to be used in all cases when the pleurisy is moist and rattling. But when it is dry and grating, apply hot fomentations of flax seed and meal and hops. Should the pleurisy be in the side or breast of the patient, then apply the applications to those parts. (See Fig. 20.)

Pneumonia—Heated oats make a good application that will supply heat to the chest. For this it has no equal. A couple of quarts of the grain can be placed in a sack made of some thin material, and this can be heated by placing in the oven until the oats are so hot that they will burn the hand. The sack can then be applied to the spot desired, and the heat from the grain will be imparted to the body. Oats have the power of retaining the heat longer than most other applications, and they are easily reheated as often as desired. Two sacks can be made, and in urgent cases where constant heat is needed, one may be heating while the other is being used. The oats have an advantage over many other applications, some of which are good, owing to the fact that they are dry and not damp and mussy, and the clothing cannot be soiled with them.

Another feature in their favor is said to be in the fact that where liniments are used on the patient the oats will drive the liniment in where it is needed, and any excess is absorbed by the chaff on the grains of oats. Should the grain become greasy or saturated with the elements used in the liniment application, they can be discarded and new oats placed in the sacks.

2. Half teaspoonful ammonia, two tablespoonfuls lard. Mix until it is a froth like the white of eggs, spread on a cloth and place on the chest. Immediate relief will follow.

Poison Ivy—1. As soon as possible after exposure the parts should be washed with ordinary yellow kitchen soap and water. Care should be taken not to let any of the resin spread to other parts. The rinsing should be thorough. Six hours later the parts effected should again be washed with soap and water. A bath of the entire body is also advised—a shower if possible. To relieve the itching, immerse the inflamed area in hot water for several minutes, or apply hot water by means of a thick towel. If it is desired to keep some lotion on the inflamed area, use borax solution (1 teaspoonful in a cup of water) and change frequently.

2. The application of ordinary gasoline is beneficial. Benzine may be used instead. Science has discovered that the irritation of the skin in ivy poisoning is no different from any other chemical burn, and that gasoline and benzine will dissolve and remove the poisonous oil of the ivy if applied in time.

3. Apply to the effected area cloths which are kept wet with a saturated solution of saltpeter for twenty-four hours. Potassium nitrate is the official name for saltpeter.

4. The following is an inexpensive remedy which will be a positive cure for ivy poisoning.

A new five-cent hand brush, a fresh cake of pure soap, eight ounces of alcohol, and a basin of hot water. After brushing the skin thoroughly with the soap and water, bathe well with the alcohol.

The soap and water will cleanse the skin. The stiff bristles in the brush will open the tiny blisters. The alcohol will dissolve the poisonous oil in the blisters.

Preventive—Tincture (10 per cent) of rhus toxicodendron (poison ivy), 15 drops; glycerine, 2 drams; syrup of orange, enough to make 3 ounces. For immunization against ivy poisoning take internally one drop of this mixture in half a glass of water after each meal, increasing by a drop each successive dose until twenty-one drops have been reached, after each meal. Then take a teaspoonful once a day after eating, for a week or ten days. After that a teaspoonful once or twice a week throughout the season.

Psychological Tests for Infants—At six months a normal child should be able to listen to a watch ticking.

At seven months, the same child should be able to take a few swallows from a cup of liquid held to its lips.

At nine months the child should be able to pick up a piece of sugar or a crumb, using the thumb and forefinger.

At twelve months, a bell should be tapped, and upon the bell ringing, the normal child will repeat the tapping to hear the ring again.

At fifteen months, a normal child, given a corked bottle, ought to be able to pull the cork out, provided the cork is not so tightly inserted as to compel the use of a corkscrew.

Quinsy—Apply to the neck a cloth wet with coal oil, and gargle the throat with the same. A repetition of this treatment every three hours will soon relieve the patient. (See Figure 29.)

Oil of Peppermint Cure. Those who have used this remedy pronounce it a speedy cure for quinsy. It is to be applied externally around neck and throat.

Rheumatism—1. Rochelle salts. Great remedy for rheumatism. Take a heaping teaspoonful at a dose, dissolved in water, every two hours, until six doses have been taken; then take once in four hours. Some patients who have used this remedy have been enabled to lay aside their crutches within twenty-four hours

after its use. Twenty-five cents' worth of this remedy usually effects a cure. A great many cases of rheumatism are occasioned by a lack of alkali in the blood. When this is so, this remedy always effects a cure.

2. The Shakers of Mt. Lebanon cure rheumatism with the following remedy: Take of table salt one teacupful, cayenne pepper one teaspoonful, water one pint. Mix. Heat to boiling point. Bathe the affected parts with this while hot for fifteen or twenty minutes or, what is better, apply with woolen cloths wrung out of the solution. Over these put an extra covering to keep them warm, and let them remain for an hour or so. Repeat this three times a day. This treatment has cured rheumatic patients who were unable to walk in a few days. It is one of the best restoratives when the limbs are swollen or the joints enlarged.

Wintergreen for Rheumatism—Oftentimes, after all means to cure a disease have failed and hundreds and even thousands of dollars have been expended in doctoring, the most simple remedy will cure the patient. Such has been our observation in the case of the oil of wintergreen for rheumatism, as many inveterate cases have been cured with it when no other means were of any avail. The dose is five or six drops on sugar before each meal and before retiring at night.

Rheumatism, Lumbago—When a man has lumbago the best treatment consists in bending his back. If he will turn a somersault, or use his sore back muscles violently and suddenly, he may effect a cure.

For a chronic lumbago nothing is better than to quit all the bad habits which caused the trouble, to get out "Old Lizzie" and start jumping and jerking for California, Florida, or some other long trip. At least, that's the way one sedate physician stopped his lumbago. By using the method periodically he keeps it at the "stopped" stage.

Another man uses the reaper and binder cure. The joltier and the hotter the seat, the quicker he gets relief. All these are the proven methods of the common people.

Close students of arthritis and rheumatoid disturbances appreciate that active exercise is highly beneficial when the physical condition permits of its being carried out. Many persons with lumbago "cricks" in muscles and such can ward off or prevent attacks by exercise of the involved muscles. Exercise regularly, especially in the morning and evening, is a preventive.

Rheumatic patients frequently exercise the affected part—for instance, a lame knee—having learned that disuse often leads to stiffness and activity tends to lessen or prevent it. The frequent disability of the rheumatic patient in the early morning hours undergoes a betterment as the day progresses, more or less commensurate with the degree of activity indulged in.

Chemical research has explained these well known facts. Pemberton and his associates show how heating and baking even go a step further. They promote some increase in local blood supply and it is accompanied by a tendency toward alkalinity of the blood, sweat and urine. Since the tendency of the rheumatic state is rather acidward, this alkali tendency of bakes and heat generally is helpful.

Ring Worm—1. Apply coal oil with the fingers or with a piece of clean cotton cloth for two or three minutes, twice or three times a day, and the ring worm will soon disappear.

2. Iodine applied four or five times a day has cured this affliction after other things had been tried in vain. Application of zinc ointment is good.

Salt Rheum—A strong tincture of blood-root made in vinegar is sufficient to cure almost any case of tetter, as well as ring worm. Apply twice daily. The yellow-dock root similarly prepared and used is said to be equally effectual.

Salve—Linseed oil, beeswax, rosin and mutton tallow, equal parts, and heat only sufficient to mix or melt them together. This forms an excellent salve for all purposes where a salve is needed.

Salve, Russian—Take equal parts of yellow wax and sweet oil; melt slowly, carefully stirring; when cooling, stir in a small quantity of glycerine. Good for all kinds of wounds.

Salve, Old Doc—Is a fine all-around salve for burns, sunburn and innumerable irritations, itchings, smartings and inflammations which call for a local medicament. Zinc oxide 30 grains, boric acid 20 grains, benzoin 10 grains, oil of rosemary 5 drops, lanolin 6 drams, petrolatum enough to make one ounce.

Scrofula—A very excellent cure for this disease is a tea of burdock leaves. It is to be drunk freely three times a day. One author claims to have cured more than fifty cases with it.

Another—A coffee made of roasted acorns is an excellent remedy in all scrofulous affections.—*Prof. J. H. Bundy of the California Medical College.*

Seasickness—Lemon as cure for. Anyone liable to an attack of seasickness on a rocking boat or during a storm on the water can easily prevent the seasickness by sucking a lemon as soon as the sick feeling begins. It will pass away almost immediately.

Sore Throat—At the first appearance of any soreness in the throat, take a slice of salt pork, sprinkle it with black pepper, and bind it on the throat just before going to bed at night, and by morning the pain and soreness will generally have departed.

Self-Conscious—The victim of self-consciousness should earnestly aim to eliminate this most embarrassing fault by mingling with other people and learning to address them without hesitation or fear. He must learn to speak definitely and with a purpose. This he cannot do unless he has absolute confidence in himself and can speak intelligently and definitely.

Sore Throat, Chronic—In chronic sore throat and enlarged tonsils the painting of the tonsils each alternate day with a mixture of one teaspoonful of tincture of iodine and two ounces of glycerine is beneficial.

Sore Mouth—Powdered borax, one teaspoonful; glycerine, two tablespoonfuls; water, one-half teacupful. This is excellent in sore and cracked lips and tongue, in typhoid and other fevers, in fissures, cracked or chapped hands, and will make the roughest skin smooth and soft.

Spinach—For stomach, blood and liver. Most of us do not eat all the spinach we should. There is no more palatable vegetable and none which contains more valuable medicinal properties. In France its value as a cleanser of the system is so highly regarded that it is commonly referred to as the "broom of the stomach."

Surprisingly enough this highly medicinal vegetable is nine-tenths water. But the remaining tenth includes a number of things which are better for us than any medicine.

There is more iron in spinach than in any other succulent vegetable, and it is so cunningly adapted to the needs of the human body that it is assimilated with the greater ease.

There is a little niter in spinach and that is good for the blood. Its mineral salts, together with the water and the fiber, make spinach slightly laxative. As a complexion beautifier, clearing the system and bringing color to the cheeks and brightness to the eyes, it is better than the artificial liquids and creams.

Sprains—Severe. 1. The white of an egg, a tablespoonful of vinegar and a tablespoonful of turpentine. Mix in a bottle, shake thoroughly, and bathe the sprain as soon as possible after the accident.

2. An invaluable remedy for a sprain or bruise is wormwood boiled in vinegar and applied hot, with enough cloths wrapped around it to keep the sprain moist.

3. Make a strong solution of salt and vinegar and apply it as hot as can be borne over the sprain. In severe cases renew the application every three hours; binding on thick cloths saturated with the solution is the easiest way of applying.

4. The tincture of arnica is a very popular remedy, in this affection. It should be applied several times a day, first diluting it with equal parts of water. A solution of sal ammoniac with a tablespoonful of tincture of aconite is still better.

5. If an arm or ankle has beeen sprained put on either hot or cold compresses. Or first soak in hot water and then let cold water be applied. Keep the sprained part quiet and raised upon a pillow for a day.

Stricture—Urethra. 1. This disease, the result of gonorrhea, develops very slowly, rarely showing itself under two years after the gonorrhea, and sometimes causing no trouble for five or even ten years.

A case of stricture that is not serious is often cured by dilating the passage by the insertion of bogies, or cylindrical waxed rolls of linen, beginning with one of a small size, and gradually coming to use one of a larger size. These bogies either dilate the stricture or make it ulcerate. These must be perservered in for a considerable time. Different kinds of bogies are used, but the treatment of this disease should be under the care of a skillful surgeon or physician, especially if the case is a serious one.

2. Warm, moist applications will often relieve the paroxysms of pain more effectually than anything else, as, for instance, wet bran in a small sack, likewise a warm hip bath. Dovers powers are frequently taken for the same purpose.

Sun-Stroke—A European method of relieving sun-stroke is to apply a mustard plaster to the stomach. Then wring a cloth out of coal oil, after which wet it with cold water, and apply to the neck, occasionally renewing it.

Sty on Eye—Apply two or three drops of harlem oil on the lid which is affected and carefully rub it along the edge and over the lid, and it will effectually scatter the sty, unless very far advanced.

Swelling, Inflammatory—Paint tincture of iodine on the skin as a counterirritant over inflammatory swellings; paint one coat only and do not repeat within five days. No advantage is gained by blistering or giving pain with iodine.

Tetter Cure—Most cases of tetter can be cured with coal tar ointment, which is made as follows: Crude coal tar and zinc oxide, each two parts; cornstarch and petrolatum, each sixteen parts. The crude coal tar and the zinc oxide are rubbed together thoroughly and then put through a sieve. Next, rub in the starch and the petrolatum. The mixture should be black.

The ointment is buttered on the eruption, but the greased area is not covered with a bandage. The day after using, remove the old ointment with sterile gauze greased with olive oil, and apply fresh ointment. If the eruption is dry, use a mixture containing only ten parts cornstarch. If the eruption is on the scalp, use an ointment in which there is no starch.

To remove the stain of the ointment from garments, saturate the stained area with lard, and then wash the garment with hard soap and hot water.

Toe Nail—Ingrown. Iodine, put underneath the edge of the nail, and rubbed well into the infected part, with a bit of cotton over the end of a toothpick, will stop the pain. Then file the nail straight across the top, and scrape a V-shaped piece from the top of nail toward the center. Keep this V well scraped until the nail begins to contract from the edges toward the center. Mutton tallow rubbed on the edge of the nail that is ingrown, helps to keep it soft and relieves the pressure on the flesh.

Tonic—Beet juice for. Japanese health remedy. One of the most interesting discoveries of recent research by the Jap-

anese is the value of the red garden beet. The Japanese love the beet, and declare it contains that which will produce long life in the human race.

The beet is full of iron and other substances which will act on the human system when administered as a tonic. The beets are cut up and boiled for several hours, when they are removed from the water, and then the liquor is boiled down until it becomes a syrup. This is taken in doses of a small wine glass two or three times a day, usually before meals.

This is pronounced by some of the best physicians to be one of the most effectual tonics that can be taken. Large doses, such as half a pint at a time, is declared by the Japanese to be a preventive and cure for gravel of the kidneys and bladder. It should be taken until relief is certain, and this result is said to be attained in a few days.

Tonic—Family Spring Bitters. Mandrake root, one ounce; dandelion root, one ounce; burdock root, one ounce; yellow dock root, one ounce; prickly ash berries, two ounces; marsh mallow, one ounce; turkey rhubarb, half an ounce; gentian, one ounce; English camomile flowers, one ounce; red clover tops, two ounces.

Wash the herbs and roots; put them into an earthen vessel, pour over two quarts of water that has been boiled and cooled; let stand over night and soak. In the morning set it on the back of the stove, and steep it five hours; it must not boil. Strain it through a cloth, and add three tablespoonfuls of glycerine. Keep it in a cool place. Half a wine-glass taken as a dose twice a day.

This is better than all the patent medicines that are in the market—a superior blood purifier, and will cure any malignant sore, by taking according to directions, and washing the sore with a strong tea of red raspberry leaves steeped, first washing the sore with castile soap and then drying with a soft cloth and afterward washing it with the red raspberry tea.

Toothache—Severe toothache can always be relieved without medicine by simply compressing the main nerve leading to the jaws. For upper jaws the main nerve comes up through the cheek bone on each side of the nose at the point shown in the engraving (Fig. 4). The nerve that runs to the teeth in the lower jaw passes over the angle of the lower jaws about midway between the chin and ears, on each side; hence, press hard with the thumbs on the edge of the jawbone if pain is in the lower jaw.

Tooth Powder—Precipitated chalk 4 ounces, powdered borax 2 ounces, powdered myrrh 2 ounces, powdered orris root one-fourth dram. Mix well.

Tympanitis—Regulate the diet, and drink sour milk with the midday meal. Take a dose of salts. If there is great pain, insert a rectal tube high up in the rectum.

Typhoid Fever—Coffee as remedy. The famous German remedy, coffee, used in connection with milk, is regarded as a spe-

cific for typhoid fever. Two tablespoonfuls of strong black coffee is to be given every two hours, and every three or four hours all the milk the patient can drink.

To Prevent—Major A. P. Hichens of the Medical Corps says that two drops of a 7 per cent tincture of iodine in a quart of water will kill all the typhoid and cholera germs present in less than half an hour. Add two drops of ordinary tincture of iodine to a quart of water and let stand for half an hour. No matter how foul the water was before, it will now be fit to drink. The amount of iodine will be too small to taste. The cost of this method is practically nothing.

Iodine is a violent poison for all lower forms of life, such as disease germs, while it is harmless for people in extremely small amounts. Human parasites are particularly vulnerable to its action.

Urine—Suppressed and bladder affection. Apply to the lower part of the abdomen hot fomentations made out of equal parts of vinegar and water. Renew until relieved, which should be in a short time. (See Fig. 17.)

Vomiting—To cure. Wring a cloth partly dry out of very cold vinegar. Apply to the neck and put a mustard draught over the pit of the stomach. This will speedily check vomiting. (See Fig. 16.)

Warts—1. A sure cure for warts is castor oil applied several times a day. Carry a small bottle and touch the top of the wart with oil many times a day. In three to six weeks the wart will disappear and not return.

2. Keep them wet with baking soda. This is an infallible remedy.

Whooping Cough—Rub the throat and chest with a green mentholated salve, and put a warm flannel cloth on the chest. Four times a day, and after each whoop, give a tablespoonful of home-made cough syrup made as follows: One quart of water and one-half pint of whole flaxseed, one sliced lemon and two ounces of pure honey. Simmer four hours and strain. This helps to expel the mucous. Use a "vapo-cresolene" lamp at night to help breathing. Rub the abdomen with alcohol to relieve the pain caused by strain from vomiting.

Wheat Bran—Many uses of. A prominent physician of New York asserts that wheat bran is the best of laxatives. It proves particularly useful in improving or regulating intestinal function and freeing the individual from the pill habit. There is no ground for the gratuitous assertion that bran used separately irritates or injures the lining of the stomach and intestines. On the contrary, these organs are commonly benefited by the use of bran.

Hindhede, the great Danish authority on nutrition, declares that wheat bran is one of our most valuable articles of nourishment, and that the experimental studies carried on by himself and co-workers, with men as the subjects, have proven that man, as

well as the domestic animals, can digest bran. The correctness of this observation has been confirmed by other nutrition experts.

Another important point which Hindhede emphasizes is that the bran contains the vitamins (which is the fat soluble which prevents rickets) and the water soluble which prevents polyneuritis in fowl, and Beri-Beri in man.

Every household should keep a supply of wheat bran on hand and use it in various ways regularly. The bran as it comes from the mill is perfectly fit for the kitchen; no particular preparation is required except cooking. The raw bran is perfectly wholesome for anybody to eat if one likes it raw.

Liver Spots; Anemia—Bran should be taken daily; it clears up the so-called "liver-spotted" skin, removes indigestion, anemia actually improves, while the skin loses its dryness and becomes softer and of a healthier tint. For this reason bran is also a skin beautifier, such as no skin doctor can bring about by any other art. It removes dandruff and frequently will remove the eruptions of the skin so frequently noticed in young people.

It is best taken stirred in a glassful of cold water, or mixed with cooked cereal, or eaten with milk or cream. It may also be eaten in soup, broth or gruel, or given to children mixed with honey, maple or other syrup, spread on bread or toast. The quantity taken should be one to three or four heaping tablespoonfuls daily. If the laxative effect is too vigorous the quantity may be reduced. In chronic or long standing cases of constipation, the quantity may be increased, or may even be reinforced by cascara—this drug being discontinued just as soon as the chronic stage is relieved. Dr. Gallant declares that many of his patients have been relieved of anemia, constipation, and its kindred ailments through the use of nothing more than wheat bran.

Bran Macaroons—Bran macaroons are made by beating an egg with a cupful of granulated sugar until very light, adding a cupful of finely chopped almond meats, two and one-half tablespoonfuls of white flour and two and one-half tablespoonfuls of wheat bran. Drop on buttered tins and bake in a medium oven for ten minutes.

Bran is a good natural aid to digestion; it improves the digestion in nearly every instance; that is a good effect apart from its natural laxative action. If the proper foods are served no member of the household need rely upon physics either habitually or occasionally.

Womb—Inflammation or ulceration of. For inflammation or ulcerations of the womb, use the following: Glycerine, 4 tablespoonfuls; carbolic acid, 10 drops. Mix. Pour one-half teaspoonful into a pessary or rubber womb protector (to be had at any drug store), rub it about the pessary with the finger, and insert (first dipping it in water), so as to cover the mouth of the womb.

Let it remain an hour or two, or over night. The preparation will destroy the bacteria or germs that cause the trouble.

Worm Remedy—1. The following remedy will cure the most stubborn case of worms if closely adhered to: First, inject about one and one-half pints of quassia tea, made from eight ounce chips, boiled. Retain this thirty minutes. The next night inject eight ounces of melted clean lard, just warm enough to flow through a syringe. Retain this as long as possible—an hour or more, the longer the better. Follow this with a dose of worm medicine. Repeat this every two weeks until all signs of worms are gone; then do it once a month for several months, and it will cure the worst case of pinworms. The injections should be taken lying down.

Worm Remedy—2. Drink freely five or six times a day of a tea made of the plaintain leaf. Scrape the seed from the stem before making the tea. This will not only expel worms, but is an excellent cure for bowel trouble in children.

Wounds—Lacerated. Cleanse with gasoline, using sterile gauze. Wipe out wound with cotton dipped in gasoline. Paint the wound and vicinity with iodine. If the depths of the wound can not be reached with a cotton swab soaked in iodine, use a spray to get the antiseptic to the bottom and in pockets. Apply sterile gauze compress. Bandage. Reinforce dressing with adhesive strips.

SLEEPING SICKNESS

Sleeping sickness occurs among the natives and Europeans in Africa, and is characterized by increasing weakness, lethargy, and a constant tendency to sleep.

Cause—The cause is found in a microscopic parasite, conveyed from the blood of animals to that of man by the bite of a particular species of fly.

Symptoms—Are increasing dullness, with neglect of eating and other body necessities. The affected person becomes weak and emaciated. At the same time the lymphatic glands, specially those of the neck, become enlarged but painless.

Treatment and Prevention—As far as possible segregate the affected person in fly proof house, so as to prevent the flies—the carriers of the disease—from becoming infected with the parasite. Unaffected persons should be careful not to expose their legs and hands to be bitten, and where flies are plentiful, it is best to wear thick gloves and veils constantly. The clothing should be white. So far no drug is known which will kill off the parasites in the blood. The use of atoxyl may be efficacious if treatment is commenced in the very early stages. It is administered by means of a syringe, being injected under the skin or into the muscles.

ULCERS OF STOMACH—GASTRIC ULCER

Causes—Stomach ulcers. May result from hemorrhagic infiltrations, anemia, heart disease, Bright's disease, chronic catarrh, eating hot foods and taking hot drinks, or rapid eating. It is round in contour and is usually situated on the back wall of the lesser curvature of the stomach.

Symptoms—Localized pain, usually increasing after meals, vomiting of blood, gradually loss of flesh and strength, dyspepsia, anemia, constipation.

Treatment—Consists largely in rest in bed, liquid diet of milk and light soups. Thirst may be relieved by sponging the lips and tongue with ice water. Ice-bags may be applied over the affected area.

Remedies—1. Powdered charcoal ½ ounce, emulsion of Acacia 1 ounce, Peppermint Water 3 ounces. Mix. Dose 1 teaspoonful in a wine glass of water, directly after meals.

2. Wine of Pepsin 3 ounces. Dose.—2 teaspoonfuls in half a glass of water, to be sipped during meals.

Diet—Take green vegetables only, (preferably passed through a sieve) and those in small quantities; take only meat that has been parboiled and well cooked. Eat light meals of simple food for the first three months. Eat a light second breakfast about eleven A. M. This should consist of arrow root with a biscuit, boiled milk and other very simple foods. If alcohol beverages are taken at all, use moderately. Avoid claret wine. Butter and cream may be used freely, also whites of eggs, olive oil. The teeth, gums, tongue, and inside of the cheeks should be brushed with care two or three times a day. The dentist should be visited often enough to keep the teeth clean and gums in prime condition.

Preventative Measures—Masticate the food thoroughly. Never hurry over meals. Do not smoke. Avoid vinegar, lemon, condiments, and sauces, salads, raw vegetables, (celery, lettuce, etc.), pickles, pastry, sour fruit, currants, raisins, figs, nuts, new bread, and tough meats. *Dr. Heiser, Germany.*

Buttermilk Cure—Drink from one and one-half to two quarts a day beginning with a large glass about two hours after breakfast, then a glass about two hours apart during the day, in addition to one or two glasses during the noon and evening meals and a glass at bedtime.

Stomach, Catarrh of—Gruel made from the grains with a little salt for seasoning will be beneficial and curative in many cases. Rice, corn meal, or any grain boiled in enough water to remain a thin liquid, and seasoned with a little salt is gruel. It can be taken in large amount and will help the worst cases. Boil three hours. Vegetables and fruit can be used also as agreeable and needed.

CANCER OF THE STOMACH

In Cancer of the Stomach there may be hard, soft, or colloid cancer of the stomach. Heredity, adult life, male sex, and ulcer of the stomach are the causes. It is usually at the lesser curvature and pyloric end of the stomach, and in the early stages presents no characteristic symptoms. When fully developed, it may be recognized by the presence of a hard, uneven, and tender tumor, which is slightly movable, in the region of the pylorus; constant and localized pain; dyspepsia constipation; rapid loss of weight.

Symptoms—The symptoms are mostly those of dyspepsia, with more or less pain, discomfort, and vomiting; particularly after meals. The vomited matters are often of coffee-ground appearance, due to admixture with blood. The patient loses flesh and strength. Cases of cancer of the stomach advance with more or less rapidity to a fatal termination. It is best to consult a good physician. Much relief can be obtained by careful attention to the diet.

For relief of distress in stomach the following should be taken: Calcined Magnesia two ounces, Subnitrate of Bismuth one ounce. Mix. Dose—One teaspoonful in half a glass of water, to be taken when pain is severe.

Cancer—To prevent. Fifty thousand lives can be saved each year if the medical profession co-operates with the public in fighting the menace of cancer, declared Dr. John Wesley Long of Greensboro, N. C., one of America's cancer specialists who was at the clinical congress of the American College of Surgeons.

In the United States as a whole the death rate from cancer is 78.9, which means that 90,000 people die of cancer in the United States every year, or one every six minutes. Cancer slays as many people each year as died from wounds and diseases during the two years that the United States was in the world war.

While none of the doctors can state that cancer is caused by any one thing, they are able to point out a few cancer dangers, among them:

Preventive—A broken or rough tooth causing irritation of the mouth.

Eating food that is too hot or drinking liquids that scorch the oesophagus or gullet.

Too much sunlight in a dry, windy country where alkali dust irritates the skin.

Moles or warts which stand above the surface high enough to be easily irritated.

Irritation caused from the habitual smoking of a short-stem pipe. The irritation is part mechanical and partly due to nicotine.

GASTRITIS, OR INFLAMMATION OF STOMACH

Causes—Gastritis, or inflammation of the stomach. The result of irritation of the gastric mucous membrane, may be excessively acid gastric juice, which gives rise to an acid dyspepsia. It results from frequent attacks of gastritis, alcohol, tobacco, disease of the mouth, nose, throat, or teeth, chronic heart, lung, or liver disease, gout, diabetes.

Symptoms—The condition is frequent in men past middle life and is characterized by its slow onset, gradually loss of flesh and strength, pain occurring after eating, morning nausea, and vomiting of fluid containing undigested food, absence of fever, enlarged stomach.

Treatment—Careful regulation of the diet, light as to the amount. Liquid diet is necessary in chronic cases. The bowels should be regulated.

Remedies—Tincture of ginger, one-half teaspoonful; bicarbonate of soda one-half teaspoonful. Mix. Take in a cup of hot water.

2. Subnitrate of bismuth, one ounce; carbonate of magnesia, one ounce; bicarbonate of soda, two ounces. Mix. Dose: One teaspoonful in wine glass of water, before meals.

3. Charcoal, ten grain tablets; one tablet every two hours, with hot water until relieved.

Diet—Breakfast. One of the fine cereals, such as cream of wheat or farina or wheatena; twenty-four-hour-old bread; eggs, poached or coddled baked sweet apple.

Other meals: Cream of vegetable soups without meat stock; scraped or minced beef; lamb; strained green vegetables; gelatin desserts; strained stewed fruits; junket.

Beverages may be weak tea, cocoa, milk and carbonated drinks.

Avoid spices, salty foods, rough or woody foods.

For Indigestion and Coated Tongue—Dilute hydrochloric Acid, one ounce. Dose. Ten drops in a wineglass of water three times a day after each meal.

For relieving the stomach of gas. Take twenty to thirty drops of Essence of Peppermint in a half teacup of hot water.

Food Acids and Sour Stomach—Overeating, particularly of meat and bread, induces an excessive flow of gastric juice, and if overeating is a fixed habit hyperacidity of the stomach "acid dyspepsia," or "sour stomach" becomes an established complaint.

The liberal use of oranges, lemons, grape fruit or other citrous fruits—these are nature's cures. Use coffee, pastry and meat moderately; better still, discontinue entirely.

Acidity—A condition of acid reaction. The term usually refers to the accumulation of organic acids in the blood and tissues of the body, due to faulty excretion of the same.

Effects—It gives rise to nasal catarrh, bronchitis and the excessive accumulation of uric acid. The skin may be affected and herpes and eczema are common.

Treatment—The amount of acids ingested bares no fixed relation to the condition. Take light diet and exercise. Personal hygiene is an important factor in the treatment. Tincture of ginger one-half teaspoonful, bicarbonate of soda one-half teaspoonful. Mix. Take in a cup of hot water.

ANEMIA

Causes—Poverty of blood. This is a special, morbid state, in which there is fullness of the surface of the body and deficiency of the red corpuscles of the blood. It is a common affection among women, and persons of both sexes who are ill fed, or from any cause badly nourished, in crowded localities. It is occasioned by loss of blood, from disease or injury causing hemorrhage. Typhoid or other forms of fever; the malarial influence, sustained for a considerable time; deficiency of foods, light, warmth or fresh air.

Symptoms—The face, the hands and the general surface are pallidly and slightly waxen in their hue. There are faintness, palpitation and an impaired action of the organs generally, especially of the stomach and bowels; digestion being deranged, with flatulency, constipation.

Remedies—1. Iron, which enters into the constitution more abundantly than of any other tissues of the body, should be administered in whatever form it can best be assimilated. Where it is well tolerated there is probably no better preparation than tincture of the chloride of iron, in 20-drop doses, three times daily.

2. In cases where the tincture of the chloride of iron is not applicable, or is objected to by the patient, the powdered iron, called also iron reduced by hydrogen, in doses of a grain thrice daily, can almost always be borne, and is frequently of the greatest service. All the compounds of iron require, however, to be used for a long time, usually several weeks and often for several months, in order to cure the anemic condition.

3. The citrate of iron, or the citrate of iron and quinine, in doses of from three to five grains. The beef, wine and iron is also a most valuable remedial agent.

Diet—The best food which the stomach can digest, and there is no doubt that the iron which exists in beef and mutton and gives much of its red color to the muscular fibers of the flesh, is in the most favorable state for assimilation into the human system, and often has a large share in the improvement which we are perhaps too ready to attribute to the chemical compounds prescribed. The liberal use of spinach, all forms of greens, wheat bread and cereals are recommended, as these contain a large portion of iron.

PARALYSIS (Infantile)

A disease peculiar to childhood, and characterized by sudden paralysis of one or more limbs or of individual muscle-groups, and followed by rapid wasting of the affected parts, with reaction of degeneration and deformity. The onset is sudden and marked by fever, vomiting, convulsions or even coma. Paralysis and atrophy of the muscles, with reactions of degeneration, then present themselves. The affection is associated with destruction of the ganglion cells in the anterior gray horns of the spinal cord. It occurs usually during the first three years of life and most often during the summer months. It sometimes occurs in epidemics.

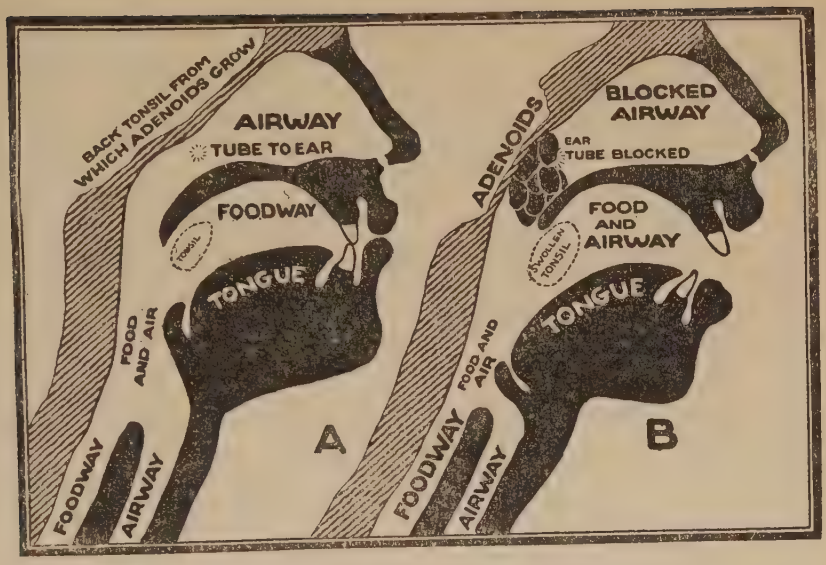
Treatment—1. Treatment during the initial stage consists in rest in bed, restricted diet, fractional doses of calomel, and sponging. An ice bag should be placed along the spine, or mild counter-irritation to the spine by mustard plasters may be practiced. After the acute symptoms have subsided, electricity and massage may be employed.

2. The following treatment will be found effective in relieving infantile paralysis during the initial stage, until a thorough diagnosis of the case can be made. Put the child suffering from symtoms of the disease in a bathtub. Let in the hot water gradually until the child gets a good sweat; or place the child in a tub of warm water, pouring in hot water gradually and stirring it around until the child sweats profusely. Or take half a dozen hot bricks and wrap them in blankets, and put them close around the child until he sweats well. Give the child a thorough sweat every two or three hours until the fever is gone.

Remedy—Two-thirds common port wine and one-third cinnamon. Mix. Give one-half teaspoonful to child of eighteen months before breakfast, and more according to age.

ICHTHYOSIS (Fishskin-disease; Xeroderma)

A congenial chronic hypertrophic disease, characterized by dryness and scaliness of the skin and a variable amount of papillary hypertrophy. Ichthyosis hystrix is the name applied to the form in which papillary hypertrophy is present. The disease is most marked upon the extensor surfaces of the arms and legs, and is not accompanied by itching. Ichthoysis hystrix affects only limited areas of the skin. The condition is worse in winter, and it is incurable. Relief may be obtained by warm or alkaline baths, and the inunction of oils, petroleum, lard, diluted glycerine, iodide of potassium in ointment, lanolin. In the papillary form removal by caustics, cautery, or knife is indicated.



This shows a cross-section of the head of a normal child (A) and of one whose adenoids and tonsils have enlarged so as to block the nasal air passage, thereby making a mouth-breather of him (B).

ADENOIDS

Adenoids is a term applied to the adenoid tissue that normally exists in the pharynx. Adenoid growths bleed easily—and the examining finger when placed behind the palate will be found covered with blood when removed.

Symptoms—Vacant expression of the face of the child, open mouth, noisy breathing, more or less impairment of the hearing, a hacking cough, a peculiar muffling of the voice, and an enlargement of the tonsils.

Treatment—1. Put as much boric acid into a desired quantity of boiled water as the water will dissolve. Use as a gargle as hot as possible, every hour or two. The same solution may be used as a mouth wash, or for bathing the eyes, or spraying the nasal passages.

2. Steaming the throat by holding the month over the spout of a kettle of boiling water will give great relief, although it is better to add a few drops of oil of Eucalyptus. Keep the bowels open, and give a light diet.

FLATULENCE

The undue generation of gases in the stomach and intestines (flatus). The principal cause of flatulence is fermentation or decomposition of the contents of the stomach and bowels, usually induced by embarrassed function. It is a common symptom in so-called dyspepsia, particularly in the atonic forms. It is present in the debilitated and the aged. Constipation, gastritis, liver disorders, and intestinal obstruction are causes and are considered under their separate headings. The following prescription may be given:

Bismuth salicylate } each..... 4 drams
Magnesium calcinate }
Powdered wood charcoal..... 6 drams
Oil of anise..... 2 drams

A teaspoonful before meals.

2. Ten drops of essence of Ginger in a little water will usually relieve.

3. Five to six drops of Oil of Cajuput on a lump of sugar taken after meals.

KNEES—CREAKING

Creaking—painful knees—stiffness and crookedness in the last joint of the fingers usually occurs in women between the ages of 45 and 60. This is a form of rheumatism, specific arthritis such as those due to tuberculosis, syphilis and gonorrhea. The trouble is generally noticed first as a creaking in the knee joint. This joint becomes painful but does not change much in shape or size nor does it become stiff. Deformity of the fingers is generally limited to the last joint.

Causes—This trouble generally starts just at the time of the change of life—women affected are usually fat.

Remedies—The best means is to reduce in weight by exercise and a diet of green vegetables, avoid meat, pastry and starchy foods, massage the parts affected. Apply iodine.

OSTEOPATHY

The high place and professional standing of the properly licensed osteopathic physician is thoroughly recognized by the medical profession and it is of daily occurrence for the most eminent physicians and surgeons to refer their patients to osteopaths of proper qualifications. But, as in the medical profession there are "quacks," so in osteopathy there are those who are not professionally qualified and when such men undertake the curing of all diseases and declare that osteopathy is the alpha and omega in the treatment of all disease, they not only do detriment to the science of osteopathy, but they become a menace to society.

It will be apparent from the foregoing that no mere chapter, such as the present, can furnish sufficient information to enable the reader, without further study, to proficiently undertake the exercise

of osteopathic practice, even in its simpler forms. It is intended to outline here simply the salient features. To do more would require a large volume devoted exclusively to the subject, after the study of which much practice in actual manipulation would be essential.

The science of osteopathy was discovered by Dr. A. T. Still, of Kirksville, Mo., and was first propounded in 1874. There have been innumerable definitions of osteopathy, but it may be briefly referred to as the science and art of curing without the use of knife or drugs. One of the best descriptions given has been that of J. Martin Littlejohn, M. D., in an address before the Royal Society, London. Dr. Littlejohn said:

"Osteopathy is based on an accurate knowledge of the anatomical structure and physiological functions of the body organism. Nature has placed within the body certain vital forces, vitalized fluids, and vitalizing processes and activities, which, in harmonious accord with one another, maintain the equilibrium of the body mechanism; and any disturbance of these forces, fluids or processes and any interference with their activity, circulation or distribution involves the absence of harmony and interference with the body order. Osteopathic manipulation aims to restore these to their normal condition, so that the body may regain its normal functional equilibrium and form. In this way osteopathy claims that life is revitalized and strengthened by vital forces, vitalizing fluids or processes, disease being removed or overborne by getting rid of an abnormal structural alignment that produces disharmony in the body and prevents normal functional activity."

Glands—Enlargement of the. Simple enlargement of a gland generally follows up the presence of some wound or other source of infection in the area drained by the lymphatic vessels going to the gland. The most common cause is the absorption of septic or of infective products from a wound, which is often very trivial. In severe cases chill, vomiting, diarrhea, and rising of temperature may be present. Pain, tenderness, swelling, and red lines follow the course of lymphatics, are also symptoms.

Treatment—The object at first is to prevent pus forming on the enlarged and inflamed gland. For this purpose the source of irritation must be removed, by opening the wound and cleaning and dressing it properly. The gland itself is best let entirely alone, or at most kept supported by a pad and flannel bandage. Later as the inflammation subsides, various counter-irritants may be applied to assist in its reduction to a natural size. If the swelling becomes soft and the skin over it reddened pus is forming, and the condition must be treated as an acute abscess.

Remedies—The following is recommended for the bowels:

Fluid Cascara .....four tablespoonfuls
Rhubarb and Soda Mixture.....two ounces

Dose—One teaspoonful every three hours with a swallow of water.

Swollen Glands—To reduce. Rub them twice a day with Lanoline mixed with a few grains of iodide of potassium.

LOCOMOTOR ATAXIA

A disease of the nervous system characterized by the hardening of the posterior columns of the spinal cord. The affection is most frequently seen in men past middle life, and may be due to syphilis, exposure to cold and wet, and excesses.

Symptoms—Motor incoordination, staggering gait, inability to walk in the dark or with the eyes closed, shooting pains in the thighs, various crises neuralgic in character, a feeling of constriction about the waist, alterations of sensation, and absence of knee-jerks.

Treatment—Iron, strychnine and other tonics and alteratives, as well as massage, gymnastics and baths.

EASY AND ACCURATE METHOD OF DIAGNOSING OR DETERMINING DISEASES

The following alphabetical table will enable the reader, in any case of sickness, to readily and accurately determine the disease from which the patient is suffering. Taking any of the leading symptoms indicated by the patient's condition, a reference to the table under that heading will at once point out the cause of illness, furnishing at the same time a ready index to the pages where will be found fuller information, together with the proper method of treatment, and the remedies required.

APPETITE, loss of—impaired digestion, thirst, nausea, cough principally in morning, irregular pains in chest, debility and night-sweats—Consumption, p. 87.

APPETITE, loss of—with general lassitude, pain in forehead, heat and acrid discharge from nostrils, hoarseness, soreness in windpipe, frequent sneezing, and dry cough—Catarrh, p. 126.

APPETITE, impaired—flatulence, eructations, nausea, furred tongue, heart-burn—Dyspepsia, p. 135.

APPETITE, depraved—itching about anus, offensive breath, picking at nose, straining at stool and disturbed sleep—Worms, p. 320.

BITE OF DOG—subsequent spasmodic affections of muscles of throat and chest, mental terror—Hydrophobia, p. 54.

BOWELS—Acute shooting pains in, while belching, bilious vomiting, thirst, depression, quick pulse, high colored urine, and obstinate costiveness—Inflammation of the Bowels, p. 230.

BOWELS, spasms of—with profuse serous or bloody discharges, faintness, painless diarrhea, sudden prostration, vomiting, cold surface and burning pain internally—Cholera, p. 111.

BREATH, offensive—and peculiarly hoarse, inflammation of the throat with livid ulcers, and fluttering pulse—Putrid Sore Throat, p. 291.

BREATH, offensive—depraved appetite, picking at nose, straining at stool, disturbed sleep, and itching about anus—Worms, p. 320.

BREATHING, oppressed—with hacking cough, coated tongue, scanty saffron-colored urine, difficulty of lying on left side, with pain on right side extending to shoulder—Liver Complaint, p. 225.

BREATH, shortness of—with palpitation of heart, headache, giddiness, ringing in ears, flashes of light, strong pulse, cough, nose bleeding—Enlargement of the Heart, p. 221.

BREATHING by starts—difficulty increased on motion, violent palpitation of heart, suffocating weight, and bounding pulse—Inflammation of Heart, p. 219.

BREATHING—difficult, on exertion, loss of appetite, impaired digestion, cough principally in morning, irregular pains in chest, and night-sweats—Consumption, p. 87.

BREATHING, oppressed—with painless diarrhea, spasms of bowels, faintness, vomiting, serous or bloody discharges, thirst, cold surface, burning heat internally with feeble pulse—Cholera, p. 111.

BREATHING, difficulty in—with dry throat, swollen tongue, red and swollen tonsils, pain in swallowing—Quinsy, p. 262.

BREATHING, loud and difficult—profound sleep, and entire suspension of voluntary motion—Apoplexy, p. 29.

CHEST, irregular pains in—difficult breathing on exertion, cough principally in morning, loss of appetite, and night-sweats—Consumption, p. 87.

CHEST, tightness of—with oppression and some fever—Bronchitis, p. 77.

CHILLS—followed by increased heat, strong pulse, flushed face, red eyes, dry tongue, short quick breathing, nausea and vomiting, lying flat on back with feet drawn up—Inflammation of Abdomen (Peritonitis), p. 223.

CHILL, followed by heat and thirst—succeeded by acute pain in one side extending towards shoulder blade, increasing in violence, sometimes cough or expectoration—Pleurisy, p. 256.

CHILL—followed by fever, sore throat, difficulty in swallowing, hoarseness or cough, followed by stridulous breathing, hot skin, aching limbs, dryness of mouth—Simple Diphtheria, p. 131.

CHILL, followed by fever—characterized by vomiting, diarrhea, thrilling pulse, sunken but flushed countenance, dry mouth, husky voice, throat red, covered with gray or white deposit—Malignant Diphtheria, p. 131.

CHILLS—and shiverings, with sore throat, followed by hot skin, nausea, frontal headache, and sometimes vomiting, with (forty-eight hours after) a scarlet rash—Scarlet Fever, p. 174.

CHILLS—with debility, oppressed breathing, nausea, giddiness, lassitude, tongue and teeth coated with dark brown fur, clammy perspiration—Typhus Fever, p. 158.

CHILL—followed by fever, increasing headache, soreness of limbs, body hot, extremities cool—Typhoid Fever, p. 163.

COLD EXTREMITIES—with chills and flushes, constant desire to lie down, sleeplessness, distressing dreams, and headache limited to one spot—Spinal Disease, p. 282.

COUGH—dry, with copious secretion of transparent mucus, accompanied by oppression and tightness of chest with some fever—Bronchitis, p. 77.

CONSCIOUSNESS, loss of—with rigidity of muscles, limbs retaining any position in which they are placed—Cataleptic Fit, p. 116.

COUGH, short—with expectoration of colored or bloody viscid matter, difficult breathing, hot skin, great thirst, deep-seated, dull pain between the breast-bone and shoulder-blade—Pneumonia—Inflammation of the Lungs, p. 259.

COUGH, slight—with oppression of chest, and hoarseness—Bronchitis, p. 77.

COUGH—principally in morning, irregular pain in chest, loss of appetite, impaired digestion, night sweats—Consumption, p. 87.

COUGH, dry—with thin acrid discharge from nose, pain in forehead, heat in nostrils, frequent sneezing, hoarseness, soreness in windpipe, loss of appetite, and general lassitude—Catarrh, p. 126.

COUGH—hoarse, harsh, with sneezing, running from the nose, sore throat and fever, followed by an eruption resembling fleabites—Measles, p. 439.

DIARRHEA—abdomen hot, tender, with blue line along gums—Painter's Colic, p. 61.

DELIRIUM, sudden—paralysis of some member, blindness or deafness, clay-like coldness of body, bleeding from spots, nausea, sensation of coldness at stomach—Spotted Fever, p. 184.

DIARRHEA—painless, with sudden prostration, spasms of bowels, faintness, vomiting, profuse, serous or bloody discharges, thirst, cold surface, burning heat internally, feeble pulse and oppressed breathing—Cholera, p. 111.

DIGESTION, impaired—with loss of appetite, red or furred tongue, thirst, nausea, cough principally in morning, irregular pains in chest, debility and night sweats—Consumption, p. 87.

DELIRIUM—with eyes and skin turning yellow, hot skin, hurried breathing, flushed face, white furred tongue, burning pain in stomach, craving for cold drink, mind disturbed—Yellow Fever, p. 185.

EARS, singing in—with pain in head, redness of eyes, violent flushing of face, costiveness, small dropping of blood from the nose—Brain Fever, p. 178.

ERUPTIONS—irregular-shaped, transparent, on slightly red surface, with more or less itching—Chicken Pox, p. 117.

EXTREMITIES cold—with body hot, increasing headache, chill, soreness of limbs—Typhoid Fever, p. 163.

ERUPTION—like flea-bites, following sore throat; harsh cough, running from the nose, and fever—Measles, p. 439.

FACE—Livid, cold surface, pain in head and weak pulse—Apoplexy, p. 29.

FACE—violet flushing of, with redness of eyes, pain in head, dry skin, costiveness, singing in ears, small dropping of blood from nose.—Brain Fever, p. 179.

FEVER—followed by an eruption of irregular-shaped, transparent vesicles on slightly red surface, with itching—Chicken Pox, p. 117.

FEVER—following chill, with sore throat, dry mouth and fauces and aching limbs—Simple Diphtheria, p. 131.

FEVER, slight (in children)—with fretfulness, cold in the head, hoarseness increasing toward evening, hot skin, frequent pulse—Croup, p. 433.

FLATULENCE—with eructations, impaired appetite, nausea and furred tongue with heartburn—Dyspepsia, p. 135.

FOOT—sudden pain in heel, toe or ankle, with sensation as of cold water pouring on, succeeded by shivering and some fever—Gout, p. 203.

GIDDINESS—with headache, ringing in ears, flashes of light, palpitation of heart, shortness of breath, strong pulse, nose bleeding—Enlargement of the Heart, p. 221.

GRIPING PAIN—in paroxysms about navel, relieved by pressure—Colic, p. 59.

HOARSENESS—slight cough, wheezy respiration, oppressed chest, slight fever—Bronchitis, p. 77.

HEADACHE—intense, with excruciating pain in back of head and upper part of spine, nausea, vomiting, chill lasting an hour or more, neck becoming rigid—Cerebro-Spinal Meningitis, p. 304.

HEADACHE—limited to one spot, sleeplessness, distressing dreams, nausea, vomiting, chills and flushes, cold extremities, and constant desire to lie down—Spinal Disease, p. 282.

HEADACHE—with pain in the back, furred tongue, vomiting, and symptoms of fever, nine or twelve days after exposure—Small Pox, p. 277.

HEADACHE—dull, languid, with sleepiness, yellowness of eyes and skin, uneasiness about stomach—Biliousness, p. 80.

HEADACHE—in front of head, chill and shivering, sore throat, followed by hot skin, nausea, and sometimes vomiting (twenty-four hours after there will be a scarlet eruption)—Scarlet Fever, p. 174.

HEARTBURN—followed by belchings, pain in the stomach, excessive vomitings and purging with violent griping pains—Cholera Morbus, p. 108.

HEAD—pain in, with redness of eyes, violent flushing of face, dry skin, costiveness, singing in ears, and small dropping of blood from nose—Brain Fever, p. 178.

HEART—sudden dreadful pain in, faintness, difficulty in breathing, clammy per-spiration—Heart Disease, p. 217.

HEART—violent palpitation of, with bounding pulse, breathing by starts, difficulty increased by motion, suffocating sense of weight on chest—Inflammation of Heart, p. 219.

HEADACHE—followed by an eruption of irregular-shaped, transparent vesicles on slightly red surface, with more or less itching—Chicken Pox, p. 117.

HEADACHE—with nausea, shivering and inflammatory spreading redness of skin at any part, with tenderness, burning pain and tingling—Erysipelas, p. 154.

HEADACHE—increasing, with chills, soreness of limbs, body hot, cold extremities—Typhoid Fever, p. 163.

HEAD AND BACK—severe pains in, with thirst, intense heat of body, white tongue, yellow eyes, nausea and vomiting of bile—Bilious Fever, p. 171.

HOARSENESS—increasing towards evening, cold in head, fretfulness, feverishness, hot skin and frequent pulse—Croup, p. 434.

INFLAMMATION—of skin, near angle of eye, on head, or on other part of body, burning tenderness and painful tingling, with shivering, headache and nausea—Erysipelas, p. 153.

ITCHING—about anus, depraved appetite, offensive breath, picking at nose, straining at stool, and disturbed sleep—Worms, p. 320.

ITCHING—on parts, which are covered with small red patches, with pimples enlarging to the size of small pearls—Shingles, p. 273.

JOINT—hip, knee, ankle, or elbow, severe pain in, white swelling with great distress till suppuration sets in—Hip Disease, p. 327.

JOINTS—local inflammation of, preceded by fever or occurring simultaneously, joints swollen, and acutely painful, pain aggravated at night—Acute Rheumatism, p. 263.

KIDNEY—shooting pain in, extending to groin and thigh, down the abdomen and around the hip, with nausea, paleness, profuse sweat and frequent desire to micturate—Gravel, p. 200.

MUSCLES—rigidity of, with loss of consciousness, limbs retaining position in which they are placed—Cataleptic Fit, p. 116.

NAUSEA—and vomiting, with chills followed by increased heat and strong pulse, flushed face, red eyes, dry tongue, short quick breathing, only endurable position flat on back with feet drawn up—Inflammation of Abdomen, p. 224.

NAUSEA—with debility, oppressed breathing, giddiness, lassitude, dark-brown fur coating tongue and teeth, clammy perspiration—Typhoid Fever, p. 158.

NAUSEA—succeeded by green or yellow vomiting, and colicky pains—Bilious Colic, p. 61.

NOSE—profuse discharge from, sneezing, cough and tightness of chest, with itching of nose, eyes, forehead and ears—Hay Fever, p. 220.

PAIN—burning at bottom of abdomen, constant desire and inability to make water, frequent stool, sickness and vomiting—Inflammation of the Bladder, p. 231.

PAIN—in side, with frequent, difficult passages of scanty and deep red urine, hot skin and costive bowels, ease only secured by lying on the affected side—Kidney Disease, p. 235.

PAIN—in right side, up to shoulder, increased on pressure, hacking cough, oppressed breathing, difficulty of lying on left side, nausea, coated tongue, scanty saffron-colored urine—Liver Complaint, p 225.

PAIN—paroxysms of nervous, very severe, burning, aching or throbbing, not confined to any particular part, and coming and going irregularly—Neuralgia, p. 199.

PAIN—in kidneys, extending to groin and thigh, down the abdomen and around the hip, paleness, nausea, profuse sweat, frequent desire to micturate—Gravel, p. 200.

PAINS—severe in head and back, intense heat over body, thirst, tongue white, eyes yellow, with nausea and vomiting of bile—Bilious Fever, p. 171.

PAIN—dull, in forehead, fullness and heat in nostrils, followed by thin acrid discharge from nose, soreness of windpipe, dry cough, loss of appetite, lassitude, etc—Catarrh, p. 126.

PAINS—acute and shooting in bowels, with obstinate costiveness, belching, and bilious vomiting, quick pulse, thirst, depression, high-colored urine—Inflammation of the Bowels, p. 230.

PAIN—sudden in great toe, heel or ankle, with sensation as of cold water poured on, succeeded by shivering and some fever—Gout, p. 203.

PAIN—in region of heart, suffocating weight, violent palpitation, breathing by starts, difficulty increased by motion, bounding pulse—Inflammation of Heart, p. 219.

PAIN—sudden, dreadful in heart, extending over chest, up shoulder and down arm, faintness and clammy perspiration—Heart Disease, p. 217.

PAINS—violent in stomach, head, joints and limbs, or at a single point, sudden paralysis of some function, as blindness or deafness, delirium, painful sensibility to touch, clay-like coldness, bleeding from spots—Spotted Fever, p. 184.

PAIN in swallowing—redness and swelling of tonsils, thirst, swollen tongue—Quinsy, p. 262.

PAIN—acute in the joints, with redness and swelling, local inflammation, preceded or occurring simultaneously with fever, pain intermittent, worse at night—Acute Rheumatism, p. 263.

PAIN in back and loins—with feverish symptoms, headache, furred tongue, and vomiting, from nine to twelve days after exposure—Small-Pox, p. 277.

PAINS—violent, griping, with great thirst and purging of green, yellow or blackish colored bile—Cholera Morbus, p. 108.

PAINS in chest—irregular, cough principally in morning, difficult breathing on exertion, loss of appetite and night-sweats—Consumption, p. 87.

PAIN—acute on one side extending up towards shoulder-blade and forepart of breast, increasing in violence, preceded by chilly sensation and heat and thirst—Pleurisy, p. 256.

PAIN—deep-seated, dull, between the breastbone and shoulder-blade, short cough, expectoration of colored sometimes bloody viscid matter, difficult breathing, hot skin, great thirst—Pneumonia; Inflammation of the Lungs, p. 259.

PAIN—severe, deep in joint of hip, knee, ankle or elbow, white swelling, with great distress till suppuration ensues—Hip Disease, p. 327.

PAINS, rheumatic—with sores of an ulcerous nature, brassy or scaly, on different parts of the body—Syphilis, Second Stage, p. 299.

PAIN—in back and upper part of spine, intense excruciating headache, nausea, vomiting, rapid pulse, chill lasting an hour or more, neck becoming rigid—Cerebro-Spinal Meningitis, p. 304.

PAIN—burning and lancinating, in a hemorrhagic ulcerous sore with fetid discharge—Cancer, p. 117.

PAIN IN HEAD—with giddiness, cold surface, livid hue, weak pulse—Apoplexy, p. 29.

PALPITATION, of heart—violent, with suffocating weight, breathing by starts, difficulty increased by motion, bounding pulse—Inflammation of Heart, p. 219.

PERSPIRATION—clammy, with tremor of extremities, lassitude, nausea, oppressed breathing, tongue and teeth covered with dark-colored fur—Typhus Fever, p. 159.

PIMPLES—itchy, in small red patches appearing on parts of the body, enlarging and filling with watery fluid—Shingles, p. 273.

RESPIRATION—labored, with wheezing, slight cough, oppressed chest—Bronchitis, p. 77.

RINGING IN EARS—with flashes of light, shortness of breath, palpitation of heart, giddiness, strong pulse, cough, and nose bleeding—Enlargement of the Heart, p. 221.

SIDE, pain in—extending up to shoulder-blade and fore part of breast, increasing in violence, has been preceded by a chill, followed by heat and thirst—Pleurisy, p. 256.

SKIN and eyes turning yellow, with hot skin, hurried breathing, flushed face,

white furred tongue, burning pain in stomach, craving for cold drink, mind disturbed—Yellow Fever, p. 185.

SKIN—hot, with frequent pulse, hoarseness increasing towards evening, cold in head, fretfulness, feverishness—Croup, p. 433.

SKIN—spreading, inflammatory redness of, with tenderness, tingling and tension, with headache, shivering and nausea—Erysipelas, p. 153.

SKIN—smooth, glossy, dull red over a soft, diffused swelling, which will leave for some time the indentation of the finger—Dropsy, p. 128.

SKIN—yellowness of, with furred tongue and dull headache or sleepiness—Biliousness, p. 80.

SKIN—purple or dark-red, over a hard, hot swelling—Carbuncle, p. 75.

SKIN—kernels or tumors under, which thicken, inflame and discharge a thick mucus—Scrofula, p. 294.

SKIN—yellow-colored, following yellowish tinge to eyes and nails, urine staining linen, stool whitish, fever symptoms, bitter taste—Jaundice, p. 232.

STOMACH—soreness of, and burning pain in, vomiting of secretions, headache, craving for cold drinks, mind disturbed, skin hot, breathing hurried, face flushed, tongue, white of eyes and skin turning yellow—Yellow Fever, p. 185.

STOMACH—uneasiness of, with sense of load on, yellowness of eyes and skin, and dull headache—Biliousness, p. 80.

STOMACH—burning, followed by chills—Congestive Chills, p. 32.

STOMACH—irritated, bowels torpid, chill of several hours, followed by paroxysms —Congestive Chills, p. 32.

SNEEZING—profuse discharge from nose, tightness of chest, cough and difficult breathing, itching of forehead, nose, eyes and ears—Hay Fever, p. 220.

SORE THROAT—with chills and shiverings, succeeded by hot skin, nausea, frontal headache and sometimes vomiting, forty-eight hours after a rash of scarlet —Scarlet Fever, p. 174.

SORE THROAT—with chill, followed by fever, aching limbs, dryness of mouth and fauces—Simple Diphtheria, p. 130.

SORE THROAT—with hoarse, harsh cough, running from nose, and fever, followed by eruption like flea-bites—Measles, p. 439.

SORES—on the sexual organs—Syphilis, first stage, p. 299.

SORES—ulcerous, on various parts, of brassy color, often scaly—Syphilis, second stage, p. 299.

SPEECH—incoherent, with blindness or dizziness, followed by stupor—Apoplexy p. 29.

SLEEPLESSNESS—distressing dreams, headache limited to one spot, nausea, vomiting, chills and flushes, cold extremities, and constant desire to lie down—Spinal Disease, p. 283.

SWELLING—white, of hip, knee, ankle, or elbow joint, with severe pain and causing great distress till suppuration ensues—Hip Disease, p. 327.

SWELLING—dropsical, of upper and lower parts of the body, with frequent, scanty and highly-colored or albuminous urination, dry skin and quick pulse —Bright's Disease, p. 234.

SWELLING—hot, harder than a boil, purple skin over—Carbuncle, p. 75.

SWELLING—glandular, which becomes inflamed, breaks and discharges a thick mucus—Scrofula, p. 294.

SWELLING—on forepart of neck, increasing and hardening, face flushing, frequent headaches, with shooting pains through body of tumor—Goiter, p. 202.

SWELLING—soft, inelastic, leaving for some time the indentation of the finger, skin smooth, and when the swelling is great, glossy, and of dull-red or purple color—Dropsy, p. 128.

TONGUE—red and inflamed, and covered with ulcers, profuse secretion of saliva with offensive breath—Canker of the Mouth, p. 120.

TONGUE—white, mucus transparent, skin dry, slight cough, oppressed chest, labored respiration—Bronchitis, p. 77.

TONGUE—white, eyes yellow, severe pains in head and back, intense heat over body, thirst, nausea, vomiting of bile—Bilious Fever, p. 171.

TONGUE—and teeth coated with dark-brown fur, with chills, oppressed breathing, nausea, tremor of extremities, lassitude, clammy perspiration—Typhus Fever, p. 158.

THIRST—with white tongue, yellow eyes, severe pains in head and back, intense heat over body, nausea and vomiting of bile—Bilious Fever, p. 171.

THROAT—inflammation of, with ash-colored spots on inflamed parts, peculiar hoarseness in breathing, fluttering pulse, offensive breath, livid ulcers—Putrid Sore Throat, p. 291.

ULCER—uneven surface and ragged, painful edges, with discharge of thin matter with fetid smell—Cancer, p. 117.

ULCER—livid, on inflammation in sore throat, with offensive breath, peculiar hoarseness in breathing, and fluttering pulse—Putrid Sore Throat, p. 291.

URINE—frequent desire to pass, with paroxysms of pain in kidney, shooting to the groin, extending down the abdomen and about the hip, with nausea, paleness and profuse sweat—Gravel, p. 199.

URINE—Frequent desire and inability to pass, frequent stool, burning pain at bottom of abdomen, sickness and vomiting—Inflammation of the Bladder, p. 231.

URINE—scanty, saffron-colored, with nausea, coated tongue, oppressed breathing, hacking cough, difficulty of lying on left side, pain in right side, extending to shoulder—Liver Complaint—p. 225.

URINE—brown or yellow, staining linen, whitish stools, yellowish tinge on whites of eyes and nails, extending to skin—Jaundice, p. 232.

URINE—scanty and deep red, in frequent and difficult passages, hot skin, costiveness, pain in side, far back, only eased by lying on the affected part—Kidney Disease, p. 235.

URINE—frequency of, with scanty, high-colored or albuminous passage, dry skin, quick pulse, dropsy, or swollenness of upper and lower parts of body—Bright's Disease, p. 234.

VESICLES—or eruptions, irregular-shaped, transparent, on a slightly red surface, with more or less itching—Chicken Pox, p. 117.

VOMITING—excessive, and purging of green, yellow or blackish-colored bile, violent griping pains and great thirst—Cholera Morbus. 108.

VOMITING—yellow and green bile, succeeding nausea, with uneasiness in right side—Bilious Colic, p. 61.

VOMITING of bile, with nausea, white tongue, yellow eyes, thirst, intense heat over body, severe pains in head and back—Bilious Fever, p. 171.

VOMITING and sickness, with frequent desire and inability to pass urine, frequent stool and febrile disposition—Inflammation, p. 231.

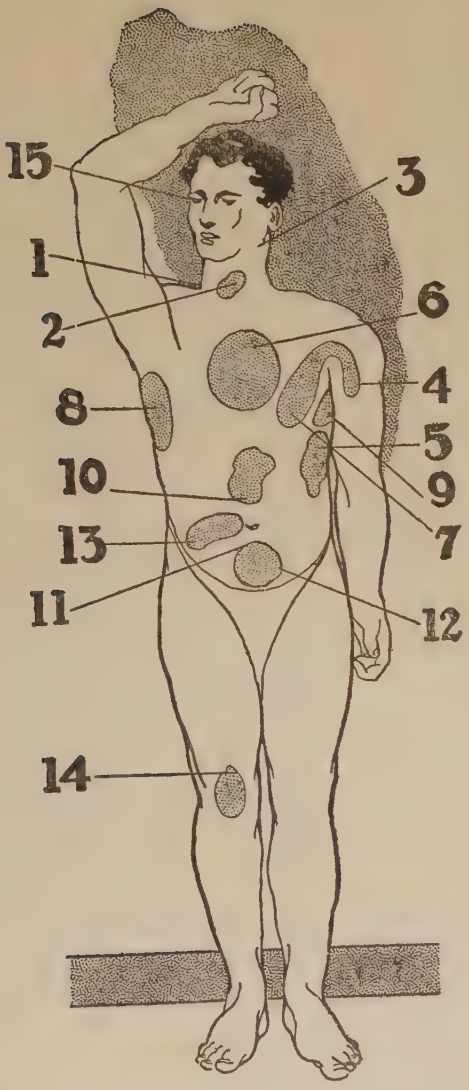
VOMITING, with sudden prostration, painless diarrhea, profuse serous or bloody discharges, cold surface and burning heat internally—Cholera, p. 111.

VOMITING of bile, with belching, high-colored urine, quick pulse, thirst, depression, obstinate constipation and acute shooting pain in bowels—Inflammation of the Bowels, p. 230.

YELLOWNESS of the eyes and skin, with furred tongue and dull headache or sleepiness—Biliousness, p. 80.

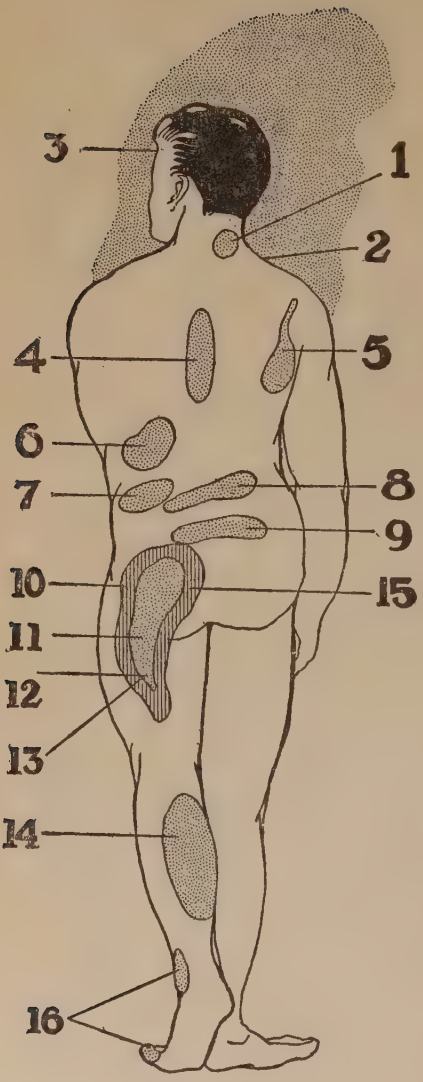
YELLOW TINGE—first in whites of eyes, then roots of nails, extending to other parts; dark brown urine, staining linen, whitish stools, pain in stomach and bitter taste—Jaundice, p. 232.

Diagnosing Chart



1. Neuritis. Page 105.
2. Tonsilitis. Page 310.
3. Mumps. Page 436.
4. Heart Disease (angina pectoris). Page 217.
5. Pleurisy. Page 256.
6. Bronchitis, or inflammation of bronchial tubes. Page 77.
6. Tuberculosis. Page 87.
7. Heart Disease. Page 217.
8. Neuralgia. Page 245.
8. Inflammation of Liver (Hepatitis). Page 225.
9. Pneumonia or inflammation of the Lungs. Page 259.
10. Disease of Stomach. Page 227.
10. Gastritis or Stomach trouble. Page 716.
11. Inflammation of lining of Abdomen. Page 223, or Tympanites. Page 311.
12. Inflammation of the Bladder. Page 231.
12. Peritonitis. Page 223.
13. Appendicitis. Page 98.
14. Creaking of Knee. Page 720.
14. Rheumatism. Page 263.
15. Spanish Influenza. Page 96.

The shaded portions in this chart indicate the location of the pain and the numbers refer, in the text, to the source of trouble.



Diagnosing Chart

1. Spinal Meningitis. Page 304.
2. Neuralgia. Page 245.
3. Disease of Spinal Column. Pages 282-304.
4. Bronchitis. Page 77.
5. Disease of Liver and Gall Bladder. Page 225.
6. Disease of Spleen. Page 189.
7. Disease of Kidneys. Page 235.
7. Stone in the Bladder. Page 199.
8. Constipation and disease of Colon. Page 122.
8. Lumbago. Pages 267-706.
9. Falling of Womb in woman. Page 418, or prostatis in man. Page 157.
10. Neuralgia. Page 245.
11. Hip Disease. Page 327.
12. Sciatic Rheumatism. Page 267.
13. Falling of Womb. Page 418.
14. Gout. Page 203.
15. Ovarian Disease. Page 330.
16. Gout. Page 203.

The shaded portions in this chart indicate the location of the pain and the numbers refer, in the text, to the source of the trouble.

TEMPERAMENTS, CONSTITUTION AND SYMPTOMS

THE PULSE

1. Strong pulse, resisting compression by the finger	indicates	Inflammatory affections, especially of the substance of large organs
2. Weak pulse, easily pressed down	"	Prostration from disease. Nervous and chronic affections. Fear.
3. Full pulse, as if the artery were increased in size	"	Congestion of brain. Apoplexy.
4. Small pulse, opposite of full	"	Inflammation of stomach, bowels.
5. Hard, sharp, contracted pulse, — vibrating like a cord under the finger	"	Inflammation of membranes.
6. Soft pulse, yielding readily to pressure	"	Affections characterized by debility

PULSE TO TAKE

The normal rate of the pulse is 76 beats per minute for the male, and 80 for the female. At birth it is from 120 to 130.

In observing the pulse, the middle and index fingers should be placed upon the artery under observation. It is impossible to test the pulse with the thumb, because a pulse-beat exists in the thumb itself.

RELATING TO DIGESTION

1. Tongue trembling and dry, and diminished in size	indicates	Typhoid and other low fevers
2. Mucous stools, like white of egg	"	Chronic inflammation of colon
3. Hard and lumpy stools	"	Constipation. Colic. Cancer of stomach
4. Clay-colored stools	"	Deficiency of bile
5. Yellow or dark-brown stools	"	Too much bile
6. Dark-green stools	"	Bile from children after taking calomel
7. Stools red, and streaked with blood	"	Dysentery
8. Pitchy black stools	"	Melaena
9. Stools pure blood, with no colic	"	Bleeding piles
10. Stools like rice-water	"	Asiatic cholera
11. Black stools	"	Iron taken in medicine
12. Shreds of false membrane in stools	"	Dysentry. Diarrhea. Worms
13. Fat with stools	"	Diabetes. Consumption

THE URINE

1. Diminished secretion of urine	indicates	Dropsy. Inflammatory and febile diseases
2. Retention of urine in the bladder	"	Paralysis. Typhoid fever. Hysteria
3. Urine increased in amount	"	Diabetes. Cold stage of fevers. Hysteria. Various passions of the mind
4. Red or yellow sand deposits in urine (uric acid)	"	Fevers. Acute Rheumatism. Consumption. Dyspepsia. Great indulgence in animal food.
5. White sediment in urine (earthly phosphates)	"	Depressed state of the nervous system
6. Blood in urine	"	Bleeding of kidneys
7. Albumen in urine	"	Bright's disease
8. Mucus in urine	"	Inflamed mucous membrane of urethra, bladder
9. Sugar in urine	"	Diabetes
10. Smelling like ammonia	"	Too rich diet

CONTAGIOUS DISEASE CHART

The following table shows the time of development and the duration of infection of contagious diseases:

Name of Disease	Period of Incubation	Eruption Appears	Duration of Infection
SMALLFOX	12 to 14 days	2d or 3d day on face	4 to 8 weeks, or until scabs disappear
CHICKEN-POX	7 to 14 days	1st to 4th day	3 to 4 weeks, or until scabs disappear
MEASLES	10 to 14 days Average 14 days	On forehead 4th day of fever	From three days before eruption until scurviness is gone
ROTHELN (German Measles)	7 to 15 days	On face 4th day of fever	Same as measles
SCARLATINA	1 to 7 days	On trunk 2d day of fever	Until scurf is gone and throat well
DIPHTHERIA AND MEMBRANOUS CROUP	2 to 10 days Average 2 to 5 days	No eruption	From beginning until 3 weeks after throat is well
WHOOPING COUGH	2 to 10 days Average 2 to 5 days	No eruption	Until "whoop" is gone
MUMPS	15 days	No eruption	24 hours before the swelling and for 30 days after
ENTERIC OR TYFHOID FEVER	1 to 28 days Average 12 days	If any, spots on abdomen, 5th to 8th day of fever	From beginning of disease until fever disappears and diarrhea stops
TYPHUS FEVER	1 to 28 days	5th to 8th day of fever	From beginning and while fever lasts
ERYSIPELAS	4 to 7 days Average 4 days		From beginning of redness until skin is clear

The "period of incubation" is the time from exposure of disease until the appearance of its symptoms.

The "duration of infection" is the time during which the disease is liable to be communicated to others, or the period during which the sick should be kept from the well.

Body Temperature—The use of the thermometer is an important addition to the means of making physical examination, and is one improvement in modern medicine. It is intended to measure the heat of the body. The bulb of the instrument is to be placed in the warmest part of the body, and should be allowed to remain there for eight to ten minutes. Some place it under the tongue; some in the armpit.

In normal temperature of the body it is from 98° to 99° Fahrenheit, in the great majority of persons.

The temperature is at its minimum at five o'clock a. m.; the maximum is reached in the latter part of the afternoon, and decreases till five o'clock a. m.

BRIGHT'S DISEASE TEST

Here is an easy way to find out whether or not you have Bright's disease.

All the apparatus required is a graduate with which to measure fluids. One marked off for ounces will do, particularly if one remembers that one pint is about 500 c. c. and one quart about 1,000 c. c.

It will be somewhat better if the equipment also includes an apparatus for taking specific gravity. This can be bought for about one dollar, and its use can be learned in ten minutes.

The test is to discover whether the day urine exceeds the night urine in quantity, and, if so, how much. A normal person should pass three or four times as much urine during the day as during the night. A person with a well developed case of Bright's disease will sometimes pass more urine at night than during the day.

That is about all there is to it, except that the test is somewhat more valuable if the specific gravity of the urine is taken each time it is passed, or if one day specimen and one night specimen are taken. Eight a. m. to 8 p. m. is regarded as day and 8 p. m. to 8 a. m. as night.

The start is made after complete voiding at 7:55 a. m. Of course, this product is thrown away. The last of the day quantity is voided at 8 p. m. and the last of the night output at 8 a. m.

It is best not to eat a heavy evening meal, especially one containing a large amount of meat. This increases the amount of urine voided during the next five hours. It is best not to drink an excessive quantity of fluid with the evening meal or shortly thereafter. This likewise increases the amount of urine unduly. In fact, it is better to distribute the drinking of water and other fluids as evenly as possible between getting up time, about 6, and going to bed time, about 10. If the kidneys are sound, the amount of day urine will be at least three times that of the night urine. If Bright's disease is just around the bend, the proportion will be about two to one. If it is already at hand, the quantities may be even. If it is advanced, the night quantity may be 25 per cent higher than the day.

If the amount of night urine is high, a low protein diet may decrease. Plenty of rest will likewise decrease it. "Early to bed" is a great cure for Bright's disease.

If this simple test becomes generally known and people generally make use of it, many will discover they have Bright's disease at a time when the disease is easily remedied.

Many will find that the night urination, about which they are now so much frightened, thinking that it means Bright's disease, means nothing more than bladder trouble or prostate trouble, or nervousness.

Frequent urination is not a symptom of Bright's disease.

Diet—In any case of Bright's disease accompanied by dropsy the diet should be salt free. In dropsy an excess of water is held in the tissues. Salt in the tissues holds it there. If the diet contains a minimum amount of salt it will be easier to get the surplus water out of the tissues. But a salt free diet cannot be long continued, for more reasons than one. Therefore, after a period of salt free diet the menu should be changed to one low in salt. In acute Bright's disease it is proper to set a period of low diet—almost starvation diet—say one limited to fruit juices and water. One is: Put four ounces of raisins in a pint of water. Stew for twenty minutes; add enough water to make one pint. Or sugar water: Kellogg's formula is to dissolve two ounces of malt sugar in a pint of water. The water used with fruit juice should be plain water, or, at most, a carbonated water low in mineral matter. After a few days of this it is allowable to pass to a diet of milk and water.

Although sugar and water, fruit juice and water, and even milk and water are easily digested and furnish a fair allowance of calories, they are not complete foods, and a diet of this kind cannot be continued for more than a few weeks. Presently, the patient becomes pale as well as weak. At this stage foods containing iron are needed. Among the best of these are spinach, all other forms of greens, whole wheat bread, cereals. There must be plenty of vegetables and fruit and a fair allowance of milk, a fair allowance of fats, and especially cream and butter are advisable. And, finally, the patient with chronic Bright's disease, slowly progressing and without much tendency to dropsy or disturbance of vision, is very much disposed to go too far in his dieting. As a rule one is pale because the food does not contain enough iron. Watch the diet closely; one probably eats less meat than is needed. Eat a small daily allowance of meat provided one obeys certain laws. Avoid constipation.

Do not eat meat extracts, bouillon, meat soups, very highly seasoned meats, high cheeses, sweetbreads, kidney or liver, or condiments of any kind.

It is doubtful if one should drink coffee or tea in any quantity. Do not eat cranberries or pie plant or sorrel. The best meat is boiled meat and soup stock meat. Above all, one should avoid heavy meals—gourmandizing.

DIABETES TEST

How to save $5 to $30 per annum by making one's own test for sugar in the urine. The simplest and most satisfactory test for glucose (sugar) in the urine is made thus:

To an inch or two of Benedict's solution in a test tube add eight to ten drops of urine. Boil the mixture for two minutes, and then let it stand to cool. If after cooling there is a yellow, green or reddish precipitate or cloudiness, that is sugar.

Benedict's solution is a standard solution obtainable from druggists everywhere.

HEART TEST

The first and simplest test is holding the breath by the watch. If you can hold it forty seconds your heart must be functioning very well. If your breaking point falls much short of the normal average of forty seconds you need medical attention. There is a little secret or trick which is interesting and harmless to try out which would spoil the significance of the test. If one prepares for two or three minutes first, by breathing a little deeper and just a little faster than ordinary, then holds the breath, it is not difficult to last one and a half or two minutes.

Another fairly dependable test of the integrity of the circulation is made thus: Count the pulse after you have been sitting at rest for fifteen minutes. Then quickly run up a single flight of stairs and count the pulse again. There should be an increase of about twenty beats a minute in the rate. This increased rate continues for a few minutes. If the rate increases much more than twenty beats the circulation is insufficient.

BERI-BERI

This is a very fatal but obscure disease occurring in Ceylon, the Malabar coast and the outer ports or British India.

Causes—The causes are very obscure. It is a disease of debility, arising from a want of stimulating and nourishing diet, impure air and exposure to a moist and marshy atmosphere, while the frame is debilitated by residence in an unhealthy station. Beri-Beri resembles pernicious anemia. The general symptoms are those of anemia. The treatment is largely symptomatic, tonic and dietetic. A diet of wheat bran acts as a cure and preventive. (See article on wheat bran.)

LIST OF MEDICINES IN PLAIN ENGLISH.*

The following shows how simple some remedies are that are employed by physicians in the treatment of diseases when the Latin names they use are translated into plain English. It also shows how many of the Drug remedies used are poisonous. When a patient has obtained a prescription, this list will enable him to readily ascertain whether it contains any poisonous Drug.

LATIN.	ENGLISH.	POISON
Aqua Calcis	Lime Water	
Acetum	Vinegar	
Atropa Belladonna	Deadly Nightshade	Poison
Aconite	Monkshood	Poison
Argenti Nitras	Lunar Caustis	Poison
Acacia Gummi	Gum Arabic	
Allium Savitum	Garlic	
Amygdalus Amara	Bitter Almond	Poison
Acidum Hydrocyanicum	Prussic Acid	Poison
Adeps	Fat or Grease	
Acidium Tartaricum	Tartaric Acid	
Alumen	Alum	
Amygdala Dulcis	Sweet Almonds	
Aqua Ammoniæ	Hartshorn	
Aristilochia Serpentaria	Snakeroot	
Arnica Montana	Arnica Flowers	Poison
Aurantii Cortex	Orange Peel	Poison
Acidum Carbolicum	Carbolic Acid	Poison
Acidum Nitricum	Nitric Acid	Poison
Anti Toxin	Pus cultures from sick beasts	
Althea Rosea	Hollyhock	Poison
Arum Triphyllum	Indian Turnip	Poison
Artemisia Trigida	Mountain Sage	
Allium Cepa	Onion	
Amydalus Persica	Peach Tree	
Asclepias Tuberosa	Pleurisy Root	
Ambrosia Alatior	Ragweed	Poison
Articum Lappa	Burdock	
Anthemis Cotula	Mayweed	
Acidum Tannicum	Tannin	Poison
Antimonium	Antimony	Poison
Anthemis Nobiles	Chamomile	
Berberis Aquifolium	Wild Grape	
Copaiferæ	Balsam Copaiba	Poison
Coulophyllum Thalictroides	Blue Cohosh	Poison
Cucumis Colocynthis	Bitter Cucumber	...Poison in large doses
Calx	Lime	
Conium Maculatum	Poison Hemlock	Poison

*For additional list see "Materia Medica," page 479.

LATIN.	ENGLISH.	POISON
Convalaria Racemosa	Solomon's Seal	
		Poison in large doses
Chenopodium Anthelminticum	Worm Seed	
Carbo Ligni	Charcoal	
Capsicum Annuum	Cayenne Pepper	
Cornus	Dogwood	Poison
Carum	Caraway	
Chincona Rubra	Peruvian Bark (Quinine)	
Creta Preparata	Prepared Chalk	
Crocus Sativus	Saffron	
Castaria	Catnip	
Cochlearia Amoricia	Horse-radish	
Camphora	Camphor	
Cantharis	Spanish Fly	Poison
Caryophyllus	Cloves	
Cassia Maralandica	Senna	
Cephaelis Ipecacuanha	Ipecac	Poison in large doses
Cystogen	Proprietary mixture	
Citrus Limonum	Lemon Juice	
Cetraria Islandica	Iceland Moss	
Convolvulus Jalapa	Jalap	
Creosotum	Creosote	Poison
Cupri Sulphas	Blue Stone	Poison
Diuretin	Mixture (Patent Medicine)	
Datura Stramonium	Thorn Apple	Poison
Diosma Crenata	Buchu	
Digitalis Purpurea	Foxglove	Poison
Dioscorea Villosa	Wild Yam	
Eupatorium Perfoliatum	Boneset	
Epifagus Americanas	Beech Drops	
Eucalyptus Globulus	Blue Gum	
Eriodictyon Californicum	Yerba Santa	
Fragaria Vesca	Strawberry	
Ferula Asafœtida	Asafœtida plant	Poison
Ferri Ferrocyanuretum	Prussian Blue	Poison
Guaiaci Sorbilis	Guarana	Poison
Gelseminum	Yessamine	Poison
Glycyrrhiza	Liquorice	
Granatum	Pomegranate	
Gossypinum	Cotton Plant	Poison
Gentiana Lutea	Gentian	
Grindelia Squarrosa	Tar Weed	
Hammamelis Virginiana	Witch Hazel	
Hepatica Triloba	Liverwort	
Hydrargyrum	Mercury, Quicksilver	Poison
Hydrargyri Chloridum Corrosidum	Corrosive Sublimate	Poison
Hydrargyri Chloridum Mite	Calomel	Poison
Hydrargyri Massæ Pilulæ	Blue Mass	Poison
Hydrargyri Oxidum Rubrum	Red Precipitate	Poison
Hydrastis Canadensis	Solomon Seal	

LATIN.	ENGLISH.	POISON.
Humulus Lupulus	Hops	
Iris Versicolor	Blue Flag	Poison
Lingiber	Ginger	
Laurus Camphora	Camphor	
Leptandra Virginica	Culvert Root	Poison
Linum Usitatissimum	Flaxseed	
Lobelia Cardinalis	Blue Lobelia	
Lobelia Inflata	Indian Tobacco	
Kyrofine	Proprietary mixture	
Mentha Piperita	Peppermint	
Maranta Aurundinacea	Arrowroot	
Magnesiae Sulphas	Epsom Salts	
Marrubium Vulgare	Horehound	
Mel Despumatum	Honey	
Moschus Moschiferus	Musk	
Mentha Pulegium	Pennyroyal	
Mentha Viridis	Spearmint	
Nux Vomica	Dogweed	Poison
Nux Moschata	Nutmeg	
Nymphoe Odorata	White Pond Lily	
Oleum Morrhuæ	Cod Liver Oil	
Oleum Ricina	Castor Oil	
Oleum Tiglium	Croton Oil	Poison
Oleum Lini	Linseed (flaxseed) Oil	
Oleum Amygdalæ	Oil of Almonds	Poison
Oleum Olivæ	Sweet (olive) Oil	
Oleum Terebrithinum	Turpentine	
Oralis Stricta	Sheep Sorrel	
Potassa Hydras	Caustic Potash	Poison
Potassæ Nitras	Saltpetre	
Pimenta	Allspice	
Plumbi Acetas	Sugar of Lead	Poison
Plumbum	Lead	Poison
Papaver Somniferum	Poppy Heads	Poison
Pigmentum Indicum	Indigo	
Piper Nigrum	Black Pepper	
Potassæ Supertartras	Cream of Tartar	
Prunus Virginiana	Wild Cherry	
Pulv. Ipecac et opii	Dover's Powders	Poison in large doses
Prunus Persica	Peach Leaves	
Pix Liquida	Tar	
Pilocarpus Pennatifolius	Jaborandi	
Piscidia Erythrina	Jamaica Dogwood	Poison
Papaver Somniferum	Opium	Poison
Plantago Major	Plantain	Poison
Phytolacca Decandra	Poke Root	Poison
Polygonum Punctatum	Smart Weed	
Panax Quinquefolium	Ginseng	
Polemomeum Reptans	Blue Bells	
Paullinia Sorbilis	Guarana	

LATIN.	ENGLISH.	POISON.
Polytrichum Juniperum	Hair-Cap Moss.	
Pinus Canadensis	Spruce.	
Pipsissema Umbellata	Winter Green.	
Phenolgine	Proprietary mixture	Poison
Protargol	Proprietary mixture	
Podophyllum	May Apple	Poison
Potassi Chloras	Potassium Chlorate	Poison
Proto Nuclein	Made from blood of cattle and pigs	Poison
Phosphorus		Poison
Quercus Alba	White Oak	
Quercus Insectoria	Gall Nut	Poison
Rheuma	Rhubarb.	
Rhus Aromatica	Sweet Sumac.	Poison
Rubus Villosus	Blackberry.	
Rumex	Yellow Dock	Poison
Rhus Toxicodendron	Poison Oak	Poison
Salvia Officinalis	Sage	
Scutellaria Laterifiora	Scull Cap	
Strychnia	Strychine	Poison
Sulphate of Zinc		Poison
Sinapis Alba	White Mustard	
Spiritus Atheris Nitrosi	Sweet Spirits of Nitre	
Saccharum Alba	White Sugar	
Saccharum Lactis	Sugar of Milk	
Sagus Rumphii	Sago	
Sanguinaria Canadensis	Bloodroot.	
Sinapis Nigra	Black Mustard.	
Smilax Officinale	Sarsaparilla	
Sodæ Biboras	Borax	
Sodæ Carbonas	Baking Soda.	
Sodium Chloridum	Salt	
Sodæ et Potassæ Tartras	Rochelle Salts	
Sodæ Phosphas	Phosphate of Soda	Poison
Sodæ Sulphas	Glauber's Salts	
Solannin Dulcamara	Bitter Sweet	Poison
Sulphur Rotumdum	Brimstone	Poison
Sanialea Marilandica	Black Snake Root	Poison
Salix Niger	Black Willow.	
Sambucus Canadensis	Elder.	
Spigelia Marilandica	Pink Root	
Sulphas Quinia	Quinine.	
Tanacetum	Tansy	Poison
Tinctura Opii	Laudanum	Poison
Tinctura Opii Camphorata	Paragoric	Poison
Tannalbin	Albumin and Tannin	Poison
Turnera Aphrodisiaca	Damiana	Poison in large doses
Taraxacum Dens Leonis	Dandelion	Poison in large doses
Trifolium Pratense	Red Clover.	
Ulmus Fulva	Slippery Elm	

PROFESSIONAL REMEDIES.

CHOLERA MORBUS.

Latin.		English.	
Take		Take	
Acetum	16 drachms.	Vinegar	½ glassful
Piper Niger	4 "	Black Pepper	1 tablespoonful
Chloride of Sodium	3 "	Table Salt	1 "
Aqua pura	16 "	Water	½ glassful
Dose, 1 tablespoonful every hour.		Dose, 1 tablespoonful every hour.	

GRAVEL.

Latin.		English.	
Take		Take	
Sodii Boras	1 ounce	Borax	1 tablespoonful
Potasii Bitartaris	4 drachms	Cream Tartar	1 "
Aqua pura	1 pint	Water	1 pint
Dose, 2 tablespoonfuls every 4 hours.		Dose, 2 tablespoonfuls every 4 hours.	

DIABETES.

Latin.		English.	
Take		Take	
Pulvis Cretæ	½ ounce	Pulverized Chalk	1 teaspoonful
Dose, 1 teaspoonful in a glass of milk three times daily.		To be taken in a glass of milk three times a day.	

EARACHE.

Latin.		English.	
Take		Take	
Pulvis, Piper Niger	¼ drachm	Pulverized blk. pepper	¼ teasp'f'l
Oleum Olivæ	¼ "	Sweet Oil	¼ "
Wrap the former in lock of cotton, moisten with the latter and insert in the ear.		Wrap in lock of cotton, moisten with sweet oil and insert in ear.	

SUMMER COMPLAINT.

Latin.		English.	
Take		Lime water	1 teacupful
Aqua Calcis	1 gill	Dose, 1 teaspoonful three times a day. Directions for making lime water, see page 447,	
Dose, 1 teaspoonful 3 times a day.			

SCIATIC RHEUMATISM.

Latin.	English.
Take	Take
Spiritis Terbinthinum	Spirits of turpentine
Dose, ½ teaspoonful twice a day.	Dose, ½ teaspoonful twice a day.

MALARIAL DISEASES.

Latin.		English.	
Take		Take	
Citrus Limonum	4 ounces	Lemon juice	1 teacupful
Aqua pura	8 "	Water	½ pint
Dose, 1 tablespoonful three times a day.		Dose, 1 tablespoonful three times a day.	

CHILLS AND FEVER.

Latin.	English.
Take	Take
Eupatorium Perfoliatum Infusum	Boneset tea
Dose, ½ teacupful before meals.	Dose, half teacupful before meals.

WORMS.

Latin.		English.	
Take		Take	
Chenopodicum Anthelminticum, Pulv.	4 drachms	Worm seed, pulverized	½ ounce
Dose, 1 teaspoonful before meals.		Dose, 1 teaspoonful before each meal.—Dr. E. H. Ruddock.	

From the foregoing it is readily seen that the original cost of many prescriptions is comparatively nothing, and that we often think we are getting something wonderful, when, in fact, it is only something wonderfully simple.

MALARIAL DISEASES.

Latin.

Take
Saccharium 4 drachms
Aqua 1 ounce
Citrus Limonum ½ ounce
Take at one dose and repeat three times daily.

English.

Take
Sugar 1 tablespoonful
Water 2 "
Lemon juice 2 "
Take at one dose and repeat three times daily.

SALIVATION.

Latin.

Take
Alumin 1 drachm
Spiritis 2 "
Aqua 1 gill
Gargle every four hours.

English.

Take
Alum 1 teaspoonful
Brandy ½ tablespoonful
Water 1 teacupful
Use as a gargle every four hours.

PILES.

Latin.

Take
Oleum lini crudus 4 drachms
Plumbum cerissa 3 "
Met.—Apply to the parts twice a day.

English.

Take
Raw linseed oil 1 tablespoonful
White lead 3 teaspoonfuls
Mix thoroughly and apply to the parts twice daily.

BRONCHITIS.

Latin.

Take
Syrup simplicis 1½ ounces
Succus caspa 1 "
Dose, one teaspoonful before meals.

English.

Take
Simple syrup 3 tablespoonfuls
Onion juice 2 "
Dose, one teaspoonful before meals.

CROUP.

Latin.

Take
Succus caspa 1 drachm
every 25 minutes until relieved.

English.

Take
Onion juice 1 teaspoonful
every 25 minutes until relieved.

BURNS.

Latin.

Take
Calx aqua 1 ounce
Oleum lini 1 "
Apply frequently.

English.

Take
Lime water 2 tablespoonfuls
Linseed oil 2 "
Apply frequently.

ERYSIPELAS.

Latin.

Take
Bicarbonate of soda 2 ounces
Aqua pura 2 "
Apply with a wet cloth.

English.

Take
Baking soda 4 tablespoonfuls
Pure water 4 "
Apply with a cloth.

SPRAINS.

Latin.

Take
Chloride of sodium 1 ounce
Aqua 2 "
Apply freely with cotton cloth.

English.

Take
Table salt 2 tablespoonfuls
Water 4 "
Apply with a cotton cloth.

DYSPEPSIA.

Latin.

Take
Sinapis alba 1 drachm
Take at a dose three times a day.

English.

Take
White mustard seed 1 teaspoonful
Take three times a day.

ASTHMA.

Latin.

Take
Tinct. Lobelia Inflata 1 ounce
Aqua Pura 2 ounces
Dose 1 teaspoonful every hour until relief is obtained.

English.

Take
Tincture Lobelia 2 tablespoonfuls
Water 4 "
Dose 1 teaspoonful every hour until relief is obtained.

BILIOUSNESS.

Latin.

Take
Sodium Chloride 4 drachms
Aqua Pura 1 pint
Dose, 2 tablespoonfuls morning and evening.

English.

Take
Salt 1 tablespoonful
Water 1 pint
Dose, 2 tablespoonfuls morning and evening.

COUGHS AND COLDS.

Latin.

Take
Tinc. Cimicifuga Racemosa 1 ounce
Tinc. Sanguinaria Canadensis 1 "
Tinc. Lobelia Inflata 1 "
Syrupi Scillae 1 "
Dose, teaspoonful every 3 hours.

English.

Take
Tinc. Black Cohosh 2 tablespoonfuls
Tinc. Blood Root 2 "
Tinc. Lobelia 2 "
Syrup of Squills 2 "
Dose, teaspoonful every 3 hours.

CONSTIPATION.

Latin.

Take
Fl. Ext. Rhamus Purshiana 3 drachms
Dose, 10 drops 3 times a day.

English.

Take
Fluid Ext. Chittim Bark 6 tablespoonfuls
Dose, 10 drops 3 times a day.

DROPSY.

Latin.

Take
Apicynum Curravinum 1 ounce
Aqua Pura 1 pint
Dose, half wine glass 3 times a day.

English.

Take
Indian Hemp 2 tablespoonfuls
Water 1 pint
Dose, 2 tablespoonfuls 3 times a day.

DIABETES.

Latin.

Take
Tinc. Lycopus Virginicus 4 ounces
Dose, 1 teaspoonful 4 times a day.

English.

Take
Bugle Weed 8 tablespoonfuls
Dose 1 teaspoonful 4 times a day.

DYSENTERY.

Latin.

Take
Sodium Chloride 1 ounce
Aqua Pura 1 pint
Acetic Acid 2 ounces
Dose, wineglassful.

English.

Take
Salt 2 tablespoonfuls
Water 1 pint.
Vinegar 4 tablespoonfuls
Dose, 4 tablespoonfuls every 3 hours.

DIARRHEA.

Latin.

Take
Ess. Mentha Piperita 4 drachms.
Dose 15 drops in teacupful of hot water. Sip as hot as can be borne. Repeat every 4 hours until cured.

English.

Take
Ess. Peppermint 1 tablespoonful.
Dose 15 drops in teacupful hot water. Sip as hot as can be borne. Repeat every 4 hours until cured.

TYPHOID FEVER.

Latin.

Take
Tinc. Baptisia Tinctoria 1 ounce
Add 5 drops to 2 of Aqua Pura.
Dose one teaspoonful every 2 hours.

English.

Take
Tinc. Wild Indigo 2 tablespoonfuls
Add 5 drops to 4 tablespoonfuls of water.
Dose, one teaspoonful every 2 hours.

HEARTBURN.

Latin.

Take
Citrus Limonum 4 drachms
Aqua Pura 2 ounces
Mix, take at one dose.

English.

Take
Lemon juice 1 tablespoonful
Water 4 tablespoonfuls
Mix, take at one dose.

LIVER COMPLAINT.

Latin.

Take
Fl. Ext. Berberis Aquifolium 1 ounce
Simple syrup 1 ounce
Dose, 1 tablespoonful 2 times a day.

English.

Take
Fluid Ext. Grape Root 2 tablespoonfuls
Syrup 2 "
Dose, 1 tablespoonful 2 times a day

PILES.

Latin.

Take
Fl. Ext. Collinsonia Canadensis 2 ounces
Dose 25 drops 3 times a day.

English.

Take
Stone Root 4 tablespoonfuls.
Dose 25 drops 3 times a day.

BOILS.

Latin.

Take
Aqua Calcis 2 ounces
Dose, 3 times a day.

English.

Take
Lime Water 4 tablespoonfuls
Dose 3 times a day.

DIPHTHERIA.

Latin.

Take
Citrus Limonum 2 ounces
Aqua Pura 4 "
Dose 1 tablespoonful every 2 hours.
At same time gargle the throat.

English.

Take
Lemon juice 4 tablespoonfuls
Water 2 wine glasses
Dose, 1 tablespoonful every 2 hours.
At same time gargle the throat.

TOOTHACHE.

Latin.

Take
Oleum Eugenia Caryophyllata 2 drachms
Wet cotton or lint with this and insert in cavity.

English.

Take
Oil of cloves 2 teaspoonfuls
Wet cotton or lint with this and insert in cavity.

APPENDICITIS.

Latin.

Take
Ext. Discorea Villosa 1 drachm
Aqua Pura 4 ounces
Dose, 1 teaspoonful once an hour until pain is relieved.

English.

Take
Ext. Wild Yam 1 teaspoonful
Water ¾ glass (large)
Dose, 1 teaspoonful an hour until pain is relieved.

QUINSY.

Latin.

Take
Oleum Mentha Piperita 2 ounces
Wet cloth with this, and bind around throat.

English.

Take
Oil of Peppermint 4 tablespoonfuls
Wet cloth with this, and bind around throat.

WATER BRASH.

Latin.

Take
Sodium Chloride 30 grains
Aqua Pura 2 ounces
Dissolve, take at dose twice a day.

English.

Take
Salt ½ teaspoonful
Water 4 tablespoonfuls
Dissolve, take at dose twice a day.

FEVER AND AGUE.

Latin.

Take
Tinct. Grindelia Squarosa 1½ ounces
Glycerine 1½ "
Dose, one teaspoonful 4 times a day.

English.

Take
Tinc. of Gum Plant 4 tablespoonfuls
Glycerine 4 "
Dose, 1 teaspoonful 4 times a day.

DIVISION TWELVE.

THE SICK-ROOM.

NURSING THE SICK.

The services of an intelligent, experienced nurse form a part of the treatment of the sick quite as essential as the administration of medicine. To aid her to some extent in the performance of this duty, the following general hints are offered: Particular instructions suited to various diseased conditions are given, when needful, throughout the book, under "Accessory Treatment." Special directions concerning infectious fevers are given in the section on "Typhoid Fever." In serious and difficult cases the medical attendant alone can furnish instructions adapted to the peculiarity of each case, and it is the nurse's duty faithfully to carry out his directions and to report to him at each visit the effects of the treatment.

The following points should be kept in view: The apartment should be airy. A spacious, well-ventilated room, allowing an uninterrupted admission of fresh and the free escape of tainted air, is a valuable element in the management of the sick. Fresh air can only be insured by an open window or door, or both.

In ventilating a sick-room, you should be careful as to the source of the air which you let in. Never air a room from another room that has been closed up tight for days previously, nor from a hall which is itself seldom properly aired. The air which you let into the room should not come from a filthy locality, nor from a kitchen, nor underground or basement room. A fireplace or grate in a room is greatly to be preferred to a stove, and the fireplace should never be closed. Some people, as soon as the season for having fires is over, close up the fireplaces of the rooms where a fire is not necessary. This is bad; a fireplace should never be shut up; it serves, when open, whether with or without fire, as a most important ventilator, an escapement or draught through which the air may constantly change. By opening a window a little, say at the top, or if this cannot be done, by taking out one of the upper lights, and making a brisk fire in an open fireplace, a fine draught and plentiful supply of fresh air can be obtained and the room kept properly ventilated. And this should always be done, except in

the most extreme hot weather. You need have no fear of the patient taking cold under such circumstances. Of course, the patient is to be in bed and well supplied with the necessary covering; you will find that patients do not take cold while in bed, and it is better even to make use of artificial heat, by applying about the patient's feet, legs and body warm bricks or bottles of hot water, than to close the room and permit the patient to breathe impure air. When patients first get out of a warm bed is the time they are most likely to take cold. Great care, then, should be exercised in keeping them warmly wrapped. Cleanliness of the skin and clothing, pure air for breathing and proper food, are the chief essentials for the sick. Yet how few are thus properly cared for; and, not infrequently, the result is the death of the patient, when to an inscrutable Providence, improper remedies or an incompetent physician, is attached the blame which should rest upon an ignorant or negligent nurse.

Another extraordinary fallacy is the dread of night-air. What air can we breathe at night, but night-air? The choice is between pure night-air from without and foul night-air within. Most people prefer the latter—an unaccountable choice. What will they say if it is proved to be true that fully one-half of all the disease we suffer from is occasioned by people sleeping with their windows shut? An open window most nights in the year can never hurt any one. In great cities night-air is often the best and purest air to be had in the twenty-four hours.

During infectious diseases, besides diluting the poison with an abundance of atmospheric air, dilute carbolic acid, especially prepared for use in the sick-room, may be used as an efficient and agreeable disinfectant. The same solution should be frequently sprinkled about the floors, bedclothes, handkerchief, etc., and be diffused through the room by a spray-producer. It acts quickly as an efficient disinfectant. It may also be used for personal disinfection —a point often but indifferently carried out—by adding it to the water in which the patient is washed, and is a valuable substitute for aromatic vinegar. It also makes an excellent gargle for sweetening the breath of fever-patients. It is also useful to visitors of the sick, to prevent the risk from infectious diseases; for this purpose a few drops should be sprinkled on the handkerchief before entering the sick-room. Perfumed carbolic acid, which may be procured already prepared for use, will be found much more agreeable than ordinary preparations of the pure acid.

To the same end the room should be divested of all superfluous furniture, carpets, bed-hangings, etc.

The room should be provided with a second bed or convenient couch to which the patient should, if possible, be removed for a short time, at least once in the twenty-four hours. This insures a change of atmosphere around the patient's body, and at the same time allows the bed to be aired.

The sick room should be quiet. Silk dresses and creaky boots, the crackling noise made by handling a newspaper, etc., often distress invalids; the tones of the voice should be gentle and subdued, but whispering is to be avoided; all unnecessary conversation and noise must be forbidden.

The temperature of the room should be ascertained by a thermometer, as the sensations of the nurse cannot be depended upon as a sufficient guide; a thermometer, suspended beyond the influence of a current of air or the direct heat of the fire, will correctly indicate the temperature of the room. The temperature may be varied according to the nature of the disease from which the patient suffers. In fevers, inflammation of the brain, etc., about 55° will be the proper warmth; in inflammation of the lungs and bronchitis, a higher temperature is necessary—60° and upwards. In all inflammatory affections of the chest the air should be warm and also moist, so as not to irritate the inflamed lining of the air-tubes. Cold air and too many bed-clothes are sure to increase the mischief. Under all circumstances it must be remembered that the temperature considered necessary is on no account to be maintained by excluding fresh air from the room, and making the patient breathe, over and over again, the air which has already been made impure.

Patients suffering from infectious diseases should be isolated, if possible, and occupy a room on an upper story, to prevent the spread of the infection to others; for infectious exhalations, being lighter than air, ascend. Mothers, who frequently go in and out of the room, might keep a loose cotton-gown ready to put on over their other dress whenever they enter it before waiting on the infected patient, and to be taken off again and left in the room when leaving.

In most cases of illness, especially at the commencement, cold water, barley-water, gum-water, raspberry-vinegar and water, apple-water, toast and water, lemonade and soda-water, all demulcent beverages, are nearly all that are necessary. There is sometimes a foolish objection raised to allowing cold water to be given to a patient; but it is not only most refreshing to the sick person, but also an agent of supreme importance, lowering excessive heat, giving vigor to the relaxed capillaries and accelerating favorable changes. The quantity of cold water given at a time should be small—one to two tablespoonfuls—and repeated as often as desired. Sucking ice is useful and grateful.

Food not to be Kept in the Sick-room—Miss Nightingale's suggestion on this point is worth repetition here. It is this; do not keep the food, drink or delicacies intended for the patient, in the sick-room or within his sight. The air and temperature of the apartment are liable to hasten putrefactive decomposition, especially in hot weather, and the continuous sight of them to cause disgust. Rather take up for him, at the fitting time, and

by way of surprise, two or three teaspoonfuls of jelly, or as many fresh grapes as he may consume at once, or the segment of an orange; or, if it be appropriate to his condition, a small cup of beef-tea, covered with one or two narrow slips of toasted bread, just from the fire. This is very much preferable to offering even a less quantity from a basinful that has been kept for many hours within reach of the patient's hand and eye.

Information upon Moderation in Convalescence, Change of Air on Recovery from Illness, etc., may be found in the section on "Typhoid Fever."

Bathing—The nurse, before commencing to bathe the patient, should provide herself with water, two towels, a sponge, a piece of soft flannel and a sheet; the temperature of the room should also be observed. Use cold or warm water as may be more agreeable to the patient's feelings. Before using the sponge to bathe, a sheet or fold of cloth should be spread smoothly over the bed and under the patient, to prevent the bed-linen on which the patient lies from becoming damp or wet.

Apply the wet sponge to one part of the body at a time, as the arm for instance. By doing so, liability to contracting chills is diminished. Take a dry, soft towel, wipe the bathed part, and follow this by vigorous rubbing with a crash towel, or, what is better, a mitten made of this material; then use briskly a piece of soft flannel, to remove all moisture that may exist on the skin, and particularly between the fingers and the flexions of the joints. In this manner bathe the entire body.

The sick should be thoroughly bathed at least once in twenty-four hours. Particular attention should be given to the parts between the fingers and toes, and about the flexions of the joints, as the accumulation of the excretions is most abundant on these parts. In bathing, these portions of the system are very generally neglected. The best time for bathing is when the patient feels most vigorous and freest from exhaustion. The practice of daubing the face and hands with a towel dipped in hot rum, camphor or vinegar, does not remove the impurities, but causes the skin soon to feel dry, hard and uncomfortable.

Food—It is the duty of every woman to know how to make the simple preparations adapted to a low diet, in the most wholesome and the most palatable way. Water-gruel, which is the simplest of all preparations, is frequently so ill-made as to cause the patient to loathe it. Always prepare the food for the sick in the neatest and most careful manner.

When the physician enjoins abstinence from food, the nurse should strictly obey the injunction. She should be as particular to know the physician's directions about diet, as in knowing how and when to give the prescribed medicines, and obey them as implicitly.

When a patient is convalescent, the desire for food is generally strong, and it often requires firmness and patience, together with

great care on the part of the nurse, that the food be prepared suitably, and given at proper time. The physician should direct how frequently it should be taken.

Bed-linen, as well as that of the body, should be aired every day, and oftener changed in sickness than in health. All clothing, when changed, should be well dried and warmed by a fire previous to its being put on the patient or the bed.

Darkening the Sick-room—It is a common error to imagine that a sick-room should always be either partially or wholly darkened. In some diseases, as for example fevers, when the eyes are acutely sensitive to light so that they remain half-closed, and the eyebrows are contracted, the greatest relief is experienced from darkening the room. When delirium is present, a certain degree of darkening is, in some instances serviceable; while in others, especially when the delirium is accompanied with visual illusions, nothing so readily dispels these, and consequently abates the delirium, as the admission of the full daylight into the sick-room. There is much difficulty, however, in determining which state of the apartment is likely to be most serviceable in any particular case. Observation of the effects of light and darkness in the individual case must be our guide.

Beds—There is probably more injury done to the sick and more lives lost through the ignorance of the nurse in regard to the bed and bedding than in any other thing. To say the least, the condition of many beds is an outrage to the suffering patient. The careful nurse is very particular about airing the sheets every day, but too little attention is generally paid to the equal necessity for airing the mattress. A mattress will soon become saturated with the unhealthy, poisonous emanations from the patient's body; from this arises a dampness, either cold or warm, as the case may be, which returns upon the patient, to be inhaled and absorbed into the system, and this unhealthy process, in case of this neglect, is kept up during the whole course of his sickness.

A patient should not be allowed to lie on the same mattress more than forty-eight hours at a time; twenty-four hours is better. It should then be exchanged for a well-aired one, and subjected to a thorough airing and sunning; by no means let it be slipped underneath another on the same bed, as is sometimes done.

The frequent changing and airing of the mattress is of vastly greater importance than the same necessity with the sheets, for the reason that it will catch and contain vastly more poisonous effluvia than sheets will, and will give it off again, to the great injury of the patient. The exhalations from the patient's body are constantly passing off by perspiration, and gradually and constantly passing into his bed.

It may be worth while to remark, that where there is any danger of bed-sores, a blanket should never be placed *under* the patient. It remains damp and acts like a poultice.

The Nurse—When all the arrangements are completed in the sick-room, little benefit can be anticipated if a proper nurse be not obtained to render them available to the invalid. Care should be taken to secure, if practicable, a nurse trained at some of the schools which are now available, and if a qualified professional nurse cannot be secured, a person in good health, active, of cheerful disposition, and pleasant, sympathetic temperament, should be chosen, who should be guided by the rules here given.

The nurse should not be under twenty-five nor above fifty-five years of age. This period is fixed upon on account both of the physical powers and the moral conduct of the individual. Under twenty-five the strength of a woman has not reached its maturity, and is scarcely adequate for lifting patients in and out of bed, and for many other duties which require strength, connected with the office of a nurse; but the strength and the muscular power in females begin to fail after fifty-five, when the natural transition from maturity to decay takes place.

A woman of a naturally delicate frame of body is unfit for a sick-nurse; at the same time, a coarse, heavy and masculine woman is, for many reasons, objectionable. While strength is requisite, the frame should be such as to indicate activity.

None of the qualifications of a sick-nurse is more important than health. An individual who herself requires attention is ill-calculated to attend upon others. A woman who is asthmatic, or has any difficulty of breathing or an habitual cough; who is rheumatic or gouty, or has any spasmodic affections; who is afflicted with palpitation or suffers from periodical headache, vertigo or a tendency to paralysis, or who is consumptive or scrofulous, or has defective sight or hearing or anything which causes decrepitude, is disqualified for a sick-nurse. It is important, also, to ascertain that the nurse is not hysterical nor predisposed to mental depression.

An attendant upon the sick should possess a happy, cheerful, equal flow of spirits, a temper not easily ruffled and kind and sympathetic feelings; but, at the same time, not such as to interfere with firmness of character. The expression of the countenance should be open and winning, so as to attract the good will and confidence of the invalid; a pleasing and gentle manner being more likely to gain esteem and insure obedience to the orders of the physician than the most persuasive arguments which can be addressed to the understanding of the patient.

A collected, cheerful expression of the countenance in the attendant on the sick is likely to inspire hope and to aid the efforts of the physician for the recovery of his patient.

The general disposition of a sick nurse should be obliging. Every little office which the invalid may require to be done should be performed at once and without the smallest apparent reluctance, even when the necessity for its immediate performance is not

absolute. There is also an earnestness of manner which should, if possible, be acquired or acquiesced in by the sick-nurse, as it impresses the idea that she feels deeply interested in the case, a circumstance which is always highly appreciated by the patient.

It ought to be unnecessary to say that a nurse should be honest, as no description of servant has so much in her power. But the honesty of the nurse is not to be measured by her respect for property; she must be above imposing on the physician, with respect either to medicines or to diet. In her habits she should be sober, active, orderly, and clean and neat in her person.

It may appear a refinement to talk of the education of a nurse, but there is not a greater difference between noon-day and midnight than between an educated and an ignorant nurse. The former is often an aid to the physician, not only in carrying his orders into effect, but by observing and informing him of symptoms of great importance which have occurred during his absence; whereas the latter is a source of constant anxiety and too often assumes the privilege of acting in direct contradiction to his orders, and according to her own opinion.

To prevent Infection—In every case of infectious disease, the attendants, even in the best ventilated rooms, should stand on the windward, or on that side of the sick-bed from which the current of air comes, as by neglect of this rule and by standing in the current which has passed over the patient, the infectious exhalations are blown upon them in a direct stream from the body of the patient. The attendants should never lean over the sick, nor should they receive their breath. The health also of the nurses should always be supported by nutritious and generous diet, but not by brandy or any other ardent spirit.

Light—Patients should be able, without raising themselves or turning in bed, to look out of the window from their beds. To see the sky and sunlight at least, if you can show them nothing else, is held to be, if not of the very first importance for recovery, at least something very near it, and you should look to the position of the beds of your sick, as one of the first essentials. Again, the morning sun and the mid-day sun—the hours when they are quite certain not to be up—are of more importance to them, if a choice must be made, than the afternoon sun. But the best rule is, if possible, to give them direct sunlight from dawn to sunset.

A great difference between the bed-room and the sick-room is that the sleeper has a very large supply of fresh air to draw upon when he begins the night, if his room has been open all day as it ought to be.

MENTAL MANAGEMENT

In this, the nurse's judgment is shown as much as in anything else. A nurse must never be "gossipy;" must, indeed, seldom "talk" at all, beyond quietly asking and answering necessary questions. As few questions as possible should be asked of a patient. His wants should be *anticipated* and provided for. Never, for example, ask whether he would not like this or that article of food. Bring what is suitable, in as pleasant a way as can be; and when it has been taken or refused, remove at once all dishes out of sight.

Of all things, do not tell a sick person about others who have lately died of the same complaint, or any other doleful news. As to his own case, encourage hope, without falsehoods; which are inexpedients as well as immoral. Wear a *cheerful countenance,* always, in the sick-chamber. Yet the sufferer must know that he has your sympathy.

If there is delirium, do not contradict or argue against strange imaginings. Rather accept them, silently; or, if a reply be wanted, turn them in the quietest way from anything disturbing.

SLEEP

As important as food it is for every sick person to get an abundance of sleep. Disease often conflicts with nightly rest; where there is delirium, it is more likely to be present at night than in the daytime.

Quietness, of course, is a prime necessity when sleep is songht; quietness of mind as well as of the body and of sights and sounds in and around the sick-chamber. The night-light had better be in the next room, with the door open, or in the passage outside; if in the room with the patient, the flame must be screened from his eyes, and the light must not be a bright one.

Bathing the arms and hands, legs and feet, with whisky and hot water (half and half) near the ordinary sleeping time, is a good tranquilizing measure. For *remedies* for *sleeplessness,* see on previous pages.

Change of position in bed, so far as to sit propped up, is refreshing, when strength allows it. For this, in the absence of a "bed-chair" or frame made for the purpose, a common chair may be used, placing it *upside down* behind the pillows, so that the back of the chair makes an inclined plane.

RUBBING: MASSAGE

Systematic rubbing over the muscles and other parts of the body is now often used, as a means of quickening a slow circulation, and removing torpor of nutrition and other functions. Such rubbing and kneading is *massage* or *manipulation*. A rubber is, in French, a *masseur;* if female, a *masseuse*. It is an ancient practice, even among savage peoples, the *lomi-lomi* of the natives of the Sandwich Islands is an example of it. It has been familiar to the Brahmins of India, and is traced back as far as to the Egyptian priests, before the time of Hippocrates. It is now employed chiefly in cases of general debility and nervousness, with patients who are not in a condition to use much, if any, muscular exercise.

"An hour is chosen midway between two meals, and the patient lying in bed, the manipulator starts at the feet and gently but firmly pinches up the skin, rolling it lightly between his fingers and going carefully over the whole foot; then the toes are bent and moved about in every direction; and next, with the thumbs and fingers, the little muscles of the foot are kneaded and pinched more largely, and the interosseous groups worked at with the finger-tips between the bones. At last the ankles are dealt with in like fashion, all the crevices between the articulating bones being sought out and kneaded, while the joint is put in every possible position. The leg is next treated, first by surface-pinching and then by deeper grasping of the areolar tissue, and last by industrious and deeper pinching of the large muscular masses, which for this purpose are put in a position of the utmost relaxation. The grasp of the muscle is momentary, and for the large muscles of the calf and thigh both hands act, the one contracting as the other loosens the grip. In treating the firm muscles in front of the leg, the fingers are made to roll the muscles under the cushions of the finger-tips. At brief intervals the manipulator seizes the limb in both hands, and lightly runs the grasp upwards, so as to favor the flow of venous blood-currents, and then returns to the kneading of the muscles. The same process is carried on in every part of the body, and especial care is given to the muscles of the loin and spine, while usually the face is not touched."

At first this is continued for but half an hour at a time; gradually it may be increased, if it appears to agree with the patient, to an hour daily or every other day. Men who are very hairy had better have the limbs and breast shaved, to prevent the irritation of the skin from pulling the long hairs, which sometimes even causes pimples or boils. Every "rubbing" should be followed by at least an hour's entire repose.

Dr. Mitchell advises that, after the first few days, *cocoa-oil* or *vaseline* shall be used to rub with. I believe this to be a very beneficial addition to massage, one not appreciated as highly as it

deserves to be. Some oil is absorbed, with not only a soothing, but also even a nourishing effect. *Cod-liver oil* is sometimes thus employed, especially with feeble children.

When there is *tenderness* anywhere, rubbing should be practiced *all around* the sensitive part, gradually approaching it. In this way, as over the spine, or on some part of the abdomen, it can be at least all included in the manipulation, removing the tenderness, to great advantage.

Whether rubbing will do good or not, depends largely on the judgment and skill of the *masseur* or *masseuse*. Dr. Mitchell's advice to disregard such effects as increased nervousness and loss of sleep, is, as I know from observation, not sound or safe. "Professional" rubbers sometimes think they must rub their hour through, if they risk rubbing out the patient's life; and thus they may do harm to feeble patients. If the patient "feels worse" after the hour's massage, the length of time given to it had better be lessened, and the interval between times increased.

Electric massage is practiced by lightly passing over different muscles and other parts a metallic brush of fine wire, connected with a battery.

ADMINISTERING MEDICINES

All medicines, aperients and stimulants should be carefully labelled and kept in a small cupboard or on a small table by themselves. Lotions and ointments should be kept on the lower shelf of the medicine cupboard, or on a separate tray.

For administering medicines have ready on a small tray a small bowl with cold water for washing the medicine glass, and a jug or bottle with a little fresh water for adding to the medicine if necessary, and a clean glass-towel to be kept for medicines only.

Castor Oil—Being very unpleasant to take, may be given in hot coffee. Pour a little hot coffee into a glass, then pour the oil into the center of it, add a little more coffee to cover the oil. Hot lemon juice will serve the same purpose. Get the patient to hold his nose and to swallow it at one gulp; in this way he will scarcely notice anything disagreeable. To give a seidlitz powder, dissolve the contents of the blue packet in half a tumbler of water, and when the patient is quite ready to take it, add the contents of the white paper, stirring quickly with a teaspoon. It should be taken while effervescing.

Mineral waters and salts should all be taken in hot water and about an hour before breakfast.

Bed-pans—There are two kinds of bed-pan—the round one, which is most suitable for children, and the slipper. The "Neinecke Perfection" is, perhaps, the best, and is most easily cleaned.

INVALID REQUISITES

Feed-cup—If the patient is helpless and obliged to lie flat on his back a feeding cup will be necessary. The old-fashioned cup with a spout like a teapot has been condemned because of the difficulty of keeping the inside of the spout absolutely clean. The "Ideal" is the best one without a spout, and may be had both in china and glass. It is well to have one of each, a china one for tea, coffee, and soup, and a glass one for milk, lemonade, or soda-water.

Clinical Thermometers—A good clinical thermometer should be kept in every family medicine cupboard. Always disinfect carefully in carbolic lotion, 1 in 40, both before and after use.

Medicine-glass—Medicines should always be measured in a measure-glass and drops in a minim measure. A large measure is used for lotions, and an earthenware jug-shaped measure is useful for measuring milk or other fluid drinks.

Mackintoshes—Mackintoshes for beds should be waterproof on both sides. It may be bought either by the yard or in sheets large enough to cover a whole mattress.

All mackintoshes should be scrubbed once a week. In order to do this thoroughly, lay the mackintosh out on a table and with a brush and soft soap and water scrub first one side, then the other. Remove the soap with a flannel and plain warm water, and hang up to dry.

Any stains on the mackintosh can be removed with a little soap. If it is an infectious case the mackintoshes should be washed over with 1 in 20 carbolic lotion.

Water-beds—These may be had in several sizes, and are very useful in cases of paralysis or where the patient is very thin. The most useful size is 36 by 24 inches.

Air-cushions—These may be had in almost any variety of shape and size, and are often a great comfort to the patient. Perhaps the most useful is the circular air-cushion; this is filled with as much or as little air as will make it comfortable under the patient's back. When not in use an air-cushion should never be emptied and folded up, but a little air should be left in it and it should be laid away flat.

Disinfecting a Room—To disinfect a room after an infectious illness proceed as follows:

Strip the room as bare as possible; remove all linen and utensils which can be washed and boiled. Scrub the floor and woodwork with soft soap and hot water, open all drawers and cupboards, and spread the contents about the room, then, before the room is dry, stop all outlets and crevices by pasting strips of paper over them. Take some rock sulphur a quarter of a pound to every hundred cubic feet of air, break it up and put it on a metal dish, and pour a little methylated spirit over it before lighting. The metal dish should be placed in a wide, shallow vessel containing cold water.

After lighting wait a minute to see if the sulphur begins to burn. Shut the door of the room and paste a strip of paper round the crevices, stopping up the keyhole. Leave it for twelve hours, then open the windows wide for several hours after. Many people disinfect again by putting down basins of chloride of lime and sealing up the room for another twelve hours, but this would only be necessary after scarlet fever and phthisis.

Fumigation with formalin candles may be done in the same way as sulphur, allowing one big candle for every 100 cubic feet.

This process of disinfection is not sufficient for mattresses, pillows, and books after such cases as scarlet fever or phthisis. The former should be properly baked and then done up, and the latter should really be destroyed. It is better, after both these illnesses, to have the room repapered and painted.

Respirations—Count the respirations without the patient's knowledge by placing the arm across the body below the chest when taking the pulse rate. When you have taken the pulse keep your fingers on the wrist a little longer and count the rise and fall of the chest in respiration. Notice if the breathing is short and shallow, or deep and labored. When there is any great difficulty in breathing, care must be taken to alter the patient's position. As a rule when breathing is difficult the patient is much more comfortable sitting up. He should be well propped up by pillows or a bedrest. In some cases it is not permissible to sit the patient up. When this is so, sometimes oxygen is ordered and affords great relief, and in all cases fresh air is absolutely necessary.

Enema—An evacuant enema is frequently ordered for constipation, and is usually given with a syringe. This is a tube with a bulb in the middle which acts as a pump. At one end there is a small metal valve to prevent the fluid drawn into the tube from flowing back into the basin. At the other end there is a white bone nozzle which is passed into the rectum. The simplest enema is soap and water. Take a quart of hot water and mix into it about an ounce of soft soap. The temperature of the enema should be about 99° F.

Put the syringe into the water and squeeze the bulb several times, allowing the fluid to flow through until there are no air-bubbles; place the basin on a chair by the side of the bed. The patient should lie on the left side with the knees drawn up. Place a folded towel under the pelvis, but keep the patient carefully covered up all the time. Find the anus with the middle finger of the left hand, and with the right hand take the nozzle, which should be well smeared with vaseline, and gently place it at this point. Be careful not to force it into the orifice when the muscle is contracted, but wait a minute until it relaxes, when it can be inserted quite easily and without pain or discomfort to the patient. If there is any difficulty with regard to retention, or if the patient is unable to lie on his side, then the enema must be given with him lying on his back with his knees drawn up and the bed-pan placed under him.

Give the injection slowly. If the patient complains of discomfort before sufficient fluid has been injected, stop for a minute or two without withdrawing the nozzle and then proceed.

After the enema has been given it should be retained for a few minutes. As it is a very unpleasant and exhausting treatment every care should be taken to bring about the desired result without having to repeat it. A simple soap and water enema may be made more efficacious by adding a few tablespoons of olive oil to it. But in cases of severe constipation the best method is to give four or five ounces of warm oil first, turning the patient on his right side to enable him to retain it. Then about an hour after give the soap and water.

Glycerine suppositories are often used instead of enemas; they are cone-shaped, and when smeared with vaseline are easily inserted.

Nutrient Enemata—In cases such as gastric-ulcer, etc., where it is necessary for the stomach to have a complete rest, the patient may be fed by nutrient enemas. From four to eight ounces of food, if carefully prepared, may be given in this way.

The food is usually composed of one and a half ounces of milk, one and a half ounces of strong beef tea or meat juice, and the yolk of an egg beaten up.

To peptonise this small amount take about a third of a Fairchild's peptonising powder, mix with a teaspoonful of warm water, and stir into the mixture before the stimulant has been added to it. Let it stand in a warm place or in a basin of warm water for ten minutes, stir it around, and add the stimulant. It should be between 98.6° and 99° when injected.

In feeding by the rectum a soft catheter and glass funnel will be found much better than the old-fashioned ball syringe. Before giving the nutrient it will be necessary to give a simple enema in order to wash out the lower bowel. Warm the catheter by running some warm water through it, smear well with vaseline, and gently insert into the bowel from five to six inches. Pinch the tube close to where it is inserted and allow all the air-bubbles to escape. Pour the nutrient into the funnel and allow it to pass into the bowel drop by drop, taking care to refill the funnel and not let any air get into the tube.

As the patient is absolutely dependent on this very small quantity of food it is most important that it should be retained, so that any carelessness in administering it is almost unpardonable in a nurse. After each nutrient the patient must rest, and every unnecessary movement avoided. If there is any difficulty in retaining it, raise the patient's thighs on a pillow and press the hips together for a quarter of an hour. Sometimes five to ten drops of opium added to the nutrient just before injecting takes away the uneasy sensation and helps retention; but it would only be ordered if the doctor thought it necessary.

To avoid the irritation of the bowel caused by artificial feeding, a simple soap and water enema should be given every second day, and an injection of warm water on the alternate day. Usually a meat suppository is given alternately with a fluid nutrient; this should be smeared with vaseline before inserting into the bowel.

The patient should be fed in this way every four to six hours during the day, according to the quantity, and usually one nutrient and one suppository during the night.

Patients fed in this way suffer greatly from thirst, and the tongue and mouth become coated and dry.

They should be allowed to wash out the mouth frequently with warm water and a pinch of carbonate of soda. Glycerine and borax, with a few drops of lemon juice applied with a very soft toothbrush or swab of cotton-wool on the end of forceps, will help to cleanse the month and allay thirst.

BREAD AND ITS COMPOSITIONS

Value of Unbolted Flour—By our system of grinding, bolting and separating wheat our fine flour contains but a little over half the quantity which has been provided for the wants of our systems in this important grain. The almost universal use of fine flour, instead of unbolted flour, is doubtless a fruitful cause of not only disease, but imperfect development of the system and its organs; in fact it is quite certain that here is to be found one of the must fruitful causes of consumption. And it would be far better if physicians would feed their patients with unbolted flour and thereby supply the phosphorus that is found in this kind of flour, than to give them the various phosphates directly from the mineral kingdom for preventing and curing consumption.

In the process of bolting flour, the dark portion is separated almost entirely, and yet this is the nutritious portion of the grain and that which in a great measure nourishes the muscles and gives strength to the system; whereas the white or starch-portion of the grain is of but little use except as a heat-producing agent; and in this respect it is far inferior to fat or oil, and most of the oil in wheat is contained in the dark or external portion of the kernel.

Dr. Bennett says: "Now, if there is a well established fact emanating from experimental analysis, it is this: that superfine or very finely bolted wheat-flour will not alone sustain animal life. This fact has been repeatedly demonstrated by Magendi, the greatest physiologist who ever lived. Having ascertained that the muscular and nervous tissues, including the whole brain or cerebral mass, was composed of nitrogenous matter, he readily concluded that starch or the fecula of wheat would not alone sustain animal life, for the reason that is contains not a particle of nitrogenous matter. Consequently, he found by experiment that animals fed exclusively on very finely dressed flour died in a few weeks; whereas those fed on the unbolted thrived.

Porridge—Always use coarsely ground oatmeal. Mix two tablespoonfuls of it with a small teacupful of cold water till it is of uniform consistence; then pour in a pint of boiling water, and keep boiling and stirring it for forty minutes. It is then fit for use, but may be kept simmering till wanted, if more boiling water be added as the other steams away. It should be served in a soup-plate quite hot; cold milk may be taken with it. Butter may also be added to taste, if not contra-indicated.

Arrow-root—Moisten two teaspoonfuls of arrow-root with two tablespoonfuls of cold milk. When it is quite smooth pour in half a pint of boiling milk; then place it in a bright saucepan and stir over the fire for three or four minutes. Two or three teaspoonfuls of powdered loaf-sugar may be added to sweeten it. Wine or brandy will frequently be prescribed with arrow-root; it must of course be added in the proportions ordered.

Sago—Put a dessertspoonful of sago into three-quarters of a pint of cold milk and simmer gently, stirring frequently, for an hour and a quarter; skim as it approaches boiling, and sweeten with a dessertspoonful of powdered loaf-sugar.

Tapioca and Cod-Liver—Boil a quarter of a pound of tapioca till tender in two quarts of water; drain it in a cullender, then put it back in the pan; season with a little salt and pepper, add half a pint of milk and one pound of fresh cod-liver cut in eight pieces. Set the pan near the fire to simmer slowly for half an hour or a little more, till the liver is quite cooked. Press on it with a spoon, so as to get as much oil into the tapioca as possible. After taking away the liver, mix the tapioca. If too thick, add a little milk, then boil a few minutes, stir round, salt and pepper to taste. Tapioca thus cooked is nourishing and easily digested.

Carrot-Pap—In Bednar's "Kinder-Krankheiten" the following formula occurs for carrot-pap, which is strongly recommended for children suffering from scrofula, rickets and worms, and is also suitable for patients recovering from acute diseases, and for dyspeptics.

An ounce of finely grated carrot should be put into half a pint of cold, soft water and should stand twelve hours, being frequently stirred; it should then be strained through a sieve, and all the juice pressed out. This juice is then to be thickened with grated bread or arrow-root and to be set upon a slow fire. After boiling up once or twice it should be sweetened and is then ready for use.

The juice of the carrot combined with plain water, biscuits or crusts of bread, contains all the material that is necessary for the nourishment of weaned children or weakly persons—albumen, starch, gelatine, sugar, fat and salt, and finally even the phosphate of lime and phosphate of magnesia. In the preparation of this food the greatest cleanliness must be observed. The juice must be prepared fresh every day, and must, moreover, be carefully watched,

lest fermentation ensue. The large and full-grown carrots are preferable to the young and small.

Bread-Jelly—1. Take the crumb of a loaf, cover it with boiling water and allow it to soak for some hours. The water, containing all the noxious matters with which the bread may be adulterated, is then to be strained off completely and fresh added; place the mixture on the fire and allow it to boil for some time till it is perfectly smooth. The water is then to be pressed out and the bread on cooling will form a thick jelly. Flavor with anything agreeable. A good food for infants at the time of weaning; also for children with acute diseases.

2. Cut off the top of a small loaf of bread. Cut the remaining part into thin slices and toast them of a pale brown, very hard. Put the bread thus toasted into nearly three pints of water and boil very gently, until you find it well set, which you will know by holding a little in a spoon; strain it off very carefully, without breaking the bread or the jelly will be thick; sweeten to your taste. It never disagrees with and is very good for infants.

Pearl-Barley Jelly—If pearl-barley be boiled for six hours, then strained off, the water on cooling will form a nutritive jelly which dissolves readily in warm milk. It is very well adapted to infants.

Nutritive Jelly—Isinglass, 1 oz.; gum-Arabic, ½ oz.; white sugar-candy, 1 oz.; port-wine, 1 pint; ¼ nutmeg, grated. These should be put in a jar to stand twelve hours, covered tightly to prevent evaporation; then placed in a saucepan with sufficient water to simmer till the contents of the jar are quite melted; the whole should be stirred; then allowed to stand till cool. A teaspoonful occasionally is reviving.

Orange or Wine-Jelly—A small packet of prepared gelatine should be soaked in one pint of cold water for an hour or more; three pints of boiling water should then be added with a pound and a half of sugar, the juice and grated rind of three or four oranges; the whole should be stirred together until the gelatine is dissolved and intermixed, strained through a clean cloth (jelly-bag), and allowed to cool.

If wine jelly be preferred, it may be made in the same manner, adding sherry, Madeira or other pure wine instead of oranges, and proportionately lessening the quantity of water.

Invalid's Jelly—Soak twelve shanks of mutton in plenty of water for some hours, clean well, put them into a saucepan with one pound of lean beef, a bunch of sweet herbs, pepper and salt to taste, one onion and a crust of bread toasted brown; add three quarts of water and let them simmer gently for five hours; strain the broth; when cold take off all the fat.

Tapioca-Jelly—The tapioca should be soaked in cold water for several hours and then cooked until perfectly clear, adding more

water if necessary; when done sweeten to taste, and flavor with vanilla, lemon or wine. When cold serve plain or with cream.

Chicken-Jelly—Half a raw chicken pounded with a mallet, bones and all together; cold water to cover it well; heat slowly in a covered vessel and let it simmer until the meat is in white rags and the liquid reduced one-half; strain and press through a coarse cloth; season to taste, return to the fire and simmer five minutes longer; skim when cool. Give to patient cold, with unleavened wafers.

Arrow-root Jelly—One cup of boiling water, two teaspoonfuls of Bermuda arrow-root, one teaspoonful of lemon-juice, two teaspoonfuls of white sugar; wet the arrow-root in a little cold water and rub smooth; then stir into the hot water, which should be on the fire and actually boiling at the time, with the sugar already melted in it; stir until clear, boiling steadily all the time, and add the lemon; wet a cup in cold water, and pour in the jelly to form. Eat cold with sugar and cream.

Arrow-root Wine-Jelly—One cup of boiling water, two teaspoonfuls of arrow-root, two teaspoonfuls of white sugar, one tablespoonful of brandy or three of wine. Proceed as with preceding recipe. An excellent corrective for weak bowels.

Jelly-Water—One large teaspoonful of blackberry-jelly, one tumbler of ice-water; beat up well. Excellent for fever patients or those suffering from gastric irritation.

Iceland-Moss Jelly—One handful of moss well washed, one quart of boiling water, the juice of two lemons, one glass of wine, one quarter of a teaspoonful of cinnamon; stir the moss (after soaking it an hour in a little cold water) into the boiling water, and simmer until it is dissolved; sweeten, flavor and strain into moulds. Good for colds, and very nourishing.

Oatmeal-Tea—Pour a pint of boiling water on a tablespoonful of oatmeal, sweeten with honey and flavor with the rind of a lemon, cut very thin; stir it up, and let it stand till cool and clear. It can be warmed for drinking if required.

Barley-Water—Wash a tablespoonful of pearl-barley in cold water; then pour off the water and add to the barley two or three lumps of sugar, the rind of one lemon, and the juice of half a lemon; pour on the whole a quart of boiling water, and let it stand covered and warm for two or three hours; then strain it. Instead of lemon, currant-jelly, orange-juice or sliced licorice may be used to flavor. Barley-water is a valuable demulcent in colds, affections of the chest, etc.

Gum-Water—One ounce of gum-Arabic, half an ounce of loaf-sugar, to one pint of cold water; should stand near the fire so as to be kept warm, and be occasionally stirred until the gum is all dissolved, and should then be allowed to cool, and will form an agreeable and nourishing drink in fevers. Lemon-peel or fruit-sirup may be added to flavor.

Linseed-Tea—1. This is often a useful drink for soothing

irritation set up by the cough of consumption, bronchitis or pneumonia and for the irritation of diarrhea, dysentery, inflammation of the bowels. It is prepared by adding one ounce of bruised linseed and a half-ounce of sliced licorice-root, to two pints of boiling water and boiling in a covered vessel near the fire for two or three hours; it should then be strained through a piece of muslin and one or two tablespoonfuls taken as often as necessary. Sliced lemon and sugar-candy will make it more palatable.

2. Linseed one ounce, white sugar one ounce, licorice-root half an ounce, lemon-juice two tablespoonfuls. Pour on the ingredients two pints of boiling water, let them stand in a hot place for four hours, then strain.

Malt-Tea—Boil three ounces of malt in a quart of water. In fever cases where mouth is very dry.

Rice-Water—The best Carolina rice should be washed with cold water, then boiled in a good measure of water for ten minutes, the water strained off and more added, and so on until the goodness is boiled out of the rice. The water is ready to drink when cold. Cream may be added if there be not high fever; a pinch of salt also, if desired, or flavoring as for barley-water.

Toast-Water—1. This is not often well made. A slice of stale bread (crust is better) should be slowly baked through (not burnt), then put in a jar with a quart of boiling water poured over it and allowed to stand covered till cool. It may be flavored with lemon-peel.

2 Toast slowly a thin piece of bread until it is extremely brown and hard, but not black, put it in a jug of cold water and cover it for an hour before using.

White-Wine Whey—Put two pints of new milk in a saucepan, and stir it over a clear fire till it is nearly boiling; then add a quarter of a pint of sherry and simmer for a quarter of an hour, skimming off the curd as it rises. Then add a tablespoonful more sherry and skim again for a few minutes till the whey is clear sweeten with loaf-sugar, if required.

Tamarind-Whey—Stir two tablespoonfuls of tamarinds in a pint of milk whilst boiling; when the curds are formed, strain off. It is a cooling and slightly laxative drink.

Whey may also be made by heating milk till it almost boils, then adding the juice of an orange or lemon, or a couple of juicy apples cut in slices, or a large tablespoonful of vinegar, molasses or honey; or sufficient powdered alum or cream of tartar, or tartaric or citric acid, to cause curdling; finally, straining and sweetening to taste.

Iceland-Moss and Milk—Soak an ounce of Iceland-moss in half a pint of hot water for a quarter of an hour; strain; then boil the moss in a quart of water till it is reduced to a pint; strain again and boil the liquor (without the moss) down to a third of a

pint; mix this with half a pint of hot milk; sweeten and flavor to taste.

Rice-Milk—If milk be plentiful, the rice may be boiled in milk; if not, boil it in water to plump and soften it and when the water is wasted put in the milk, taking care that the rice in thickening does not stick to the saucepan. Season with sugar and a piece of cinnamon. A bit of lemon or orange-peel will give zest.

Sago-Milk—Soak the grains in water for an hour before boiling or boil first in water for two or three minutes, which water pour off. Boil a large spoonful in a quart of new milk; sweeten and season to taste. Ground rice may be prepared in the same way and smaller quantities used.

Milk and Meal—Mix a large teaspoonful of either parched flour or corn-flour or arrow-root or other farinaceous food, as may be indicated by special symptoms, in a little cold milk; heat a pint of milk and when it is about to boil add to it the farinaceous preparation and keep stirring while all boils together for five minutes; sweeten with sugar and flavor with lemon or nutmeg, according to taste. This is very useful when beef-tea, eggs and light puddings cannot be taken; the milk is more nutritious than when taken by itself and is less liable to turn sour. The quantity of flour, etc., may be raised. The ordinary proportion is a large dessert-spoonful to half a pint of milk.

Lemonade—1. Rub two or three lumps of sugar on the rind of a lemon, squeeze out the juice and add to it nearly a pint of cold or iced water, or better, one or two bottles of soda-water.

2. A lemon should be cut into slices and put into a jar with several pieces of loaf-sugar; add a pint of boiling water, cover and allow it to cool. After straining, it is fit for use. This beverage is recommended to allay thirst, irritation of the throat, etc. It may be made to effervesce by the addition of a very little carbonate of soda.

3. Three pounds of loaf-sugar, 1½ pints of water, 2 ozs. of citric acid, 60 drops of essence of lemon-peel. Put the sugar into an enameled saucepan, and pour the water on it; just boil it. When half cold put in the citric acid, stir with a silver spoon, and add the essence of lemon-peel. A tablespoonful to a tumbler of water. When the lemonade is cold bottle it.

Linseed Lemonade—Four tablespoonfuls of whole linseed, one quart of boiling water, juice of two lemons. Pour the boiling water upon the linseed and steep three hours in a covered vessel; sweeten to taste; if too thick add cold water with the lemon-juice. It is admirable for colds.

Nitric Lemonade—Twenty to thirty drops of *dilute nitric acid* should be added to eight ounces of pure cold water, and flavored with honey or loaf-sugar; from a teaspoonful to a tablespoonful, according to age, may be given two or three times daily. Nitric lemonade modifies sickness in whooping-cough, and is useful in

some cases of bronchitis, consumption, coughs from relaxed palate, night-sweats, etc. Lemonade made in the same way with *sulphuric acid*, if taken daily will prevent the lead poisoning of painters.

Egg-Nog—The yolks of two eggs and half an ounce of sugar should be thoroughly rubbed together; then add four ounces of the best French brandy and four ounces of cinnamon water, and mix well.

Flummery—To any quantity of oatmeal you like to infuse put double the weight of warm water; stir well, and let the mixture infuse for four or five days in a warm temperature; add more water, stir up and strain. Let the liquid stand till the starch falls down in a white sediment, pour off the water and mixing as much of the starch or sediment as is wanted with water to thin it, boil, stirring briskly for a quarter of an hour till a jelly is formed. It is eaten with milk, butter or cream and by convalescents with wine or milk as prescribed.

White Caudle—Mix two large tablespoonfuls of finely ground oatmeal in water two hours previously to using it, strain it from the grits and boil it, sweeten and add wine and seasoning to taste; nutmeg or lemon-juice answers best.

Apple Water—To juicy apples sliced, add a little sugar and lemon-peel; pour over them boiling water; strain when cold.

Cream for Stewed Fruit—Boil an ounce and a half of gelatine in a pint and a half of water over a slow fire till there is only half a pint. Strain and sweeten, add a glass of sherry and stir in half a pint of good cream; stir till cold.

Fruit Cream—Gooseberries, apples, rhubarb or any fresh fruit may be used. To every pint of pulp add one pint of milk or cream; sugar to taste; prepare the fruit as for stewing, put it into a jar with two tablespoonfuls of water and a little good, moist sugar; set the jar in a saucepan of boiling water and let it boil until the fruit is soft enough to mash; then beat it to a pulp and work this pulp through a cullender. To every pint stir in the above proportion of milk or cream; if obtainable the latter is of course preferable.

DIFFERENT BANDAGES.

How to apply bandages in case of wounds and emergencies.

BANDAGES FOR FRACTURES.

It will often save considerable suffering if a fracture can be dressed at once by some one in the home, until a physician can be procured to give it the proper attention. We therefore give a plate showing some of the more simple bandages. After placing the fragments in position, it is then essential to keep them in place as nearly as possible; otherwise the movement of the patient, or the contraction of the muscles, would soon cause a displacement. It may be necessary to have an assistant, in order to keep the parts in place while applying the necessary supports, such as splints or bandages of different sorts.

The best material for bandages is muslin, which can be procured at the drug store; yet these can be readily prepared in the home by tearing up sheets. The width of the strip should vary, according to the locality requiring the bandage; in general, we may say from two to four inches is the proper breadth.

In order to apply a bandage properly, it must first be rolled firmly and evenly around a stick. It should then be carefully applied, the roll being held close to the affected part as it is carried up the limb. Care should be taken that the bandage is put on evenly; that is, it should not be applied tightly in one place, so as to cut off the circulation, and loosely in another.

In bandaging the hands and feet, the ends of the fingers and toes should be left uncovered in order that we may see their color and feel how warm they are. This is an important item, especially when the bandage is applied by an unskilled hand, for if it is applied so tightly that the circulation is impaired it should be loosened at once and adjusted less tightly.

For ordinary purposes, splints can be made from wood, such as a shingle or thin board which can be cut to the length and width required. Stiff pasteboard may be used to advantage in many cases where no great strength is required. Every splint, of whatever material it may be made, should be covered with cotton, which is to be made specially thick at the prominent points of the limb, and should also be made to overlap the edges of the splint, so there can be no chafing of the skin.

In many cases a lighter or weaker bandage will answer every purpose; such bandages can be made of glue or starch or a mixture of the two.

To make a starch bandage, a quantity of thick starch is prepared and kept warm while a bandage is carefully applied over the fracture, which has been well padded with cotton. The starch is then applied to the bandage, and allowed to cool. Then a second layer of starch may be rubbed into the bandage, and still a third, if necessary, until the desired stiffness is acquired. In applying the starch it is best to use the hands, as it is important to rub the starch thoroughly into the bandage. A bandage of glue and starch can be made in a similar way, and, of course, is stiffer than if made of the starch alone. To do this, take equal parts of boiled starch and melted glue, and heat them together and mix thoroughly while warm. The limb is enveloped in cotton. the same as for the starch bandage.

THE DANGER IN TONICS AND APPETIZERS.

Prof. De La Vere of the Polytechnic in London writes: The numerous nostrums, patent or otherwise, that are advertised extensively and constantly urged upon a suffering public, often, we regret to say, by members of the medical fraternity who are supplied with sample bottles and laudatory articles free of cost, do as much to injure the public health and the well being of the community at large as any other one thing that may be named.

Whoever induces people to throw overboard all such bolstering-up-of-a-bad-case practices, and teaches them to lend a deaf ear to the inducements offered by the venders of tonics and appetizers, is a public benefactor.

The great injury of all these "remedies" or so-called "aids to digestion," lies in the fact that they only hasten the death of important tissues that have been injured. Unless some of your organs are sick you feel no desire for tonics. When some predisposing cause makes them weak and nature demands rest, you take tonics to stimulate or force action upon the sick parts to their *certain undoing if persisted in and their immediate further injury if indulged in at all.* Infinitely better, and of much quicker effect, is to find the cause and remove that. Rest for the sick organs is usually sufficient; rest for a few days or weeks, as the case may be. The simple matter of abstinence from food for a time is very much more sure to cure than any tonic, and is cheaper. There are numerous cases of serious gastric disturbance wholly and permanently cured by living for six weeks or longer on a diet composed exclusively of scalded milk, and that without losing a day's work or much strength. At the end of the time nature had healed the sick tissues that were not over-stimulated, and now the person could resume his former habits and eat with impunity any decent food set before him. When nature requires food she will call for it without the intervention of any "appetizer."

She Certainly Knows When it is Needed.—Good food, that contains the elements to make bone and sinew is the tonic, in something that strengthens, is true tonic found. Our good judgment ought to teach us that such a thing can't and don't inhere, cannot be found in a tiny vial of medicine. Venders, though, of course, who make millions out of these articles, will laud their virtue.

PATENT MEDICINE FOLLY.

No doubt in the early career of patent medicines there were good and valuable remedies among them, but when it was found that the manufacture and sale of these medicines was a very lucrative business, counterfeit and spurious articles at once began to make their appearance, until now the country is flooded with scores of these remedies for each and all of the ordinary maladies that afflict mankind.

It must be evident to ordinary thinking people that there is not to be found in the domain of nature a multitude of efficient remedies for all these diseases, and these remedies multiplying still more rapidly than

ever. But it is said: "All these venders of patent medicines have the best of evidence in the way of living witnesses, to the effect that their remedies have and are constantly curing the people." In reply to this claim, we would repeat the words of the late Dr. J. H. Bundy, of California Medical College, who made the statement (and many other honest physicians have done likewise), that five diseases out of every six with which people are afflicted would get well of themselves if no medicine were taken. People get well any way, and often in spite of the medicine taken. It is, therefore, very evident that the patent medicine vender can get testimonials from people who would have recovered anyway, while the medicine is given the credit for curing the patient.

The writer once was in possession of formulas for some valuable medicine that he thought of putting on the market as a patent medicine. On consulting with some experienced druggists in regard to the matter, their reply was: "The value or efficiency of your medicine will have nothing to do with the success of its sale; that will depend entirely on the amount of advertising you give it. The ultimate success will depend on the size of your purse. Colored water will answer just as well as anything else as far as the success of the enterprise is concerned."

The best and most effective patent medicine that we ever knew, namely, "California Imperial Cough Syrup," was a complete failure when placed on the market, for the simple reason that the owner did not have the capital to advertise it successfully.

These facts prove the utter fallacy of placing any dependence upon patent medicines. While it is no doubt true that some people think they have been cured by this or that patent medicine, it is equally true that some have been cured by "dough pills" or sugar and water prescribed under Latin names by the family physician. In nearly all cases the patent medicines are actually injurious. When once the eyes of the people are opened to the stupendous fraud of these remedies that owe their success purely to the amount of advertising they get, they will no longer permit themselves to be thus imposed upon. It is now generally conceded by health experts that patent medicines have done so very much more harm than good, that if all of them could be swept into the sea, the public health would be immensely benefitted.

SPRING MEDICINE FRAUD.

There is no greater fraud practiced upon the people than that which has its origin in the prevailing notion of the need of a "spring" medicine, which, quite naturally, the venders of patent medicines do all in their power to bolster up and to increase, as their living, or rather their opportunity to become wealthy, in part depends upon it. Hundreds of thousands of bottles of spring medicine are sold every spring at from 75c to $1.25 a bottle, which contain practically nothing but some simple herb, dissolved in alcohol or water and flavored. The people ought to know that the basis of the best of these is nothing more elaborate than a decoction of the bark of the sassafras root, which

SPRING MEDICINE FRAUD.

Hundreds of thousands of dollars worse than thrown away on so-called "Spring Medicines."

The Sassafras Tree.

Ten cents' worth of sassafras bark all that is needed, and it far excels patent "blood purifiers."

A "Fall Medicine," if any, is needed worse than a spring medicine.

grows wild in many parts of the United States, and which may be purchased for a trifle in any drug store. Ten cents worth of sassafras root will make three or four bottles equal to the usual dollar bottle of patent medicine, and, if it were only known, quite as effectual. In reality, a "spring" medicine is no more needed than a "fall" medicine by most people. The system is far more apt to be depleted and weakened by the heat of the summer than it is by the purer condition of the winter. Hence, if a so-called "spring" medicine is ever needed, it is needed more in the fall than in the spring. The popular notion that the blood becomes impure in the spring is no more true of that period than of other periods. It is most likely to follow a period of comparative idleness, or overeating, no matter what time of year. The remedy is care in the diet and one or other of the simple nature remedies, such as given in Vitalogy under the proper headings. A good spring remedy is made by crushing a piece of sassafras bark and making a tea of it, and drinking from half to a tea cupful three times a day, after meals.

INSANITY CAUSED BY PATENT MEDICINES AND DRUGS.

Every state in the union has one or more great insane asylums, nearly always filled to overflowing with patients. Various causes are given for this prevalence of insanity but the real underlying cause is rarely mentioned. Statistics partly indicate that from 12 to 15 per cent. of the cases are due to the consumption of alcoholic liquors. A somewhat larger percentage is due to love affairs, sudden adversity and other recognized causes. But what of the rest? Some of the best thinkers and students in this country have reached the conclusion that the primary cause is to be found in the almost universal use of drugs and especially of "patent medicines." The metallic and vegetable poisons contained in these medicines remain as deposits in the system and attack the nerve centers, causing disturbances and weakness which in susceptible persons produces insanity. This deduction is supported by the fact that the increase of insanity is shown to have kept pace in almost exact ratio with the increased use of drugs and patent medicines. Indians and uncivilized races who do not use drug remedies have no asylums and very few or no insane. Cast aside patent medicines and drugs and in a few years our many insane asylums would be largely emptied of patients.

PATENT MEDICINES.

Cook's Electro-Magnetic Liniment—Best Alcohol, 1 gal.; oil of amber, 8 ozs.; gum camphor, 8 ozs.; castile soap, shaved fine, 2 ozs.; beef's gall, 4 ozs.; ammonia, 3 F's strong, 12 ozs.; mix, and shake occasionally for 12 hours, and it is fit for use. This will be found a strong and valuable liniment.

Magnetic Ointment—Trask's—Lard, raisins cut in pieces, and fine-cut tobacco, equal weights; simmer well together; then strain, and press out all from the dregs.

Black Oil—Best alcohol, tincture of arnica, British oil, and oil of tar, of each 2 ozs.; and *slowly* add sulphuric acid, ½ oz. This black oil is coming into extensive use as a liniment, and is indeed valuable, especially in cases attended with much inflammation.

Brandreth's Pills—Take 2 lbs. of aloes, 1 lb. of gamboge, 4 ozs. of extract of colocynth, ½ lb. of castile soap, 3 fluid drachms of oil of peppermint, and 1 fluid drachm of cinnamon. Mix, and form into pills.

Davis' Pain Killer—Powdered guaiacum, 1 oz. and 2 drs.; camphor, 1 dr.; powdered cayenne pepper, 3 drs.; caustic liquor of ammonia, ½ dr.; powdered opium, 15 grs.; digest these ingredients in 1 pt. alcohol for two weeks.

Fahnestock's Vermifuge—Castor oil, oil of wormseed, each 1 oz.; oil anise, ½oz. ;tincture myrrh, ½ drachm; oil turpentine, 10 minims. Mix.

Swaim's Vermifuge—Wormseed, 2 oz.; valerian, rhubarb, pink-root, white agaric, of each 1½ ozs.; boil in sufficient water to yield 3 quarts of decoction, and add to it 10 drops of oil of tansy and 45 drops of oil of cloves, dissolved in a quart of rectified spirits. Dose, 1 tablespoonful at night.

Radway's Ready Relief—According to Peckolt, is an ethereal tincture of capsicum, with alcohol and camphor.

Radway's Renovating Resolvent—A vinous tincture of ginger and cardamom, sweetened with sugar.

Ayer's Sarsaparilla—Take 3 fluid ozs. each of alcohol, fluid extracts of sarsaparilla and of stillingia; 2 fluid ozs. each, extract of yellow-dock and podophyllin; 1 oz. sugar, 90 grs. iodide of potassium, and 10 grs. iodide of iron.

Brown's Bronchial Troches—Take 1 lb. of pulverized extract of licorice; 1½ lbs. of pulverized sugar; 4 ozs. of pulverized cubebs; 4 ozs. pulverized gum arabic; 1 oz. of pulverized extract conium. Mix.

Artificial Cream—Take milk, 8 tablespoonfuls; sugar, ¼ lb.; cornstarch, 2 ozs. Dissolve the sugar first in a pint of water, then add the other ingredients and sufficient water to make a quart of the whole. This will be found an excellent substitute for cream.

To Clean Ladies' Black Dress-Goods—Take common lager beer and with a sponge or black cloth rub it on the right side of the goods; then iron on the wrong side This process will also stiffen the goods and render them as glossy as when first purchased. A cheap and very convenient recipe for making old dresses new.

Chemical Erasive Soap—Glycerine, 1 oz.; sulphuric ether, 1½ ozs.; alcohol, 1½ ozs.; aqua ammonia, 1½ ozs.; dissolve one and one-half ounces of castile soap in two and a half pints of hot water and add to the above. This will remove every particle of grease, from all kinds of cloth. It should be applied with a sponge or cloth, after which the garment should be sponged or rinsed with water.

Green Mountain Salve—For rheumatism, burns, pains in the back or side, etc. Take 2 lbs. resin; Burgundy pitch, ¼ lb.; beeswax, ¼ lb.; mutton tallow, ¼ lb.; melt slowly; when not too warm, add oil hemlock, 1 oz.; balsam fir, 1 oz.; oil of origanum, 1 oz.; oil of red cedar, 1 oz.; Venice turpentine, 1 oz.; oil of wormwood, 1 oz.; vedigris, ½ oz.

Shilo's Consumptive Cure—Hydrochlorate morphine, 4 grains; oil peppermint, 10 drops; oil tar, 1 fluid dram; dilute hydrocyanic acid, 1 fluid dram; chloroform, 2 fluid drams; powdered extract licorice, 2 drams; tincture lobelia, 4 fluid drams; alcohol, 1 fluid ounce. Syrup to make 1 pint.

King's New Discovery—Sulphate morphine, 8 grains; fluid extract ipecac, ½ dram; chloroform, 60 drops; tincture white pine, 2 fluid ounces; carbonate magnesia, ½ ounce; sugar, 14 ounces; water, 7 fluid ounces.

Green's August Flower—Rhubarb, 360 grains; golden seal, 90 grains; cape aloes, 16 grains; peppermint leaves, 120 grains; potassium carbonate, 120 grains; capsicum, 5 grains; sugar, ½ pound; alcohol, 3 ounces; water, 10 ounces. Macerate the mixed drugs in the water and alcohol, filter, and pass sufficient diluted alcohol through the filter to make one pint in which dissolve the sugar.

Jayne's Expectorant—Syrup squills, 2 ounces; tincture tolu, 12 drams; tincture camphor, 1 dram; tincture lobelia, 1 dram; tincture digitalis, 2 drams; laudanum, 4 grains; powdered ipecac, 4 grains; tartar-emetic? Mix together.

Carter's Little Liver Pills—Podophyllin, 1½ grains; aloes (socotrine), 3½ grains; mucilage acacia, sufficient quantity. Mix. Divide into 12 pills, and coat with sugar.

Warner's Kidney and Liver Cure—Liverwort, 1 ounce; powdered saltpetre, 320 grains; water, sufficient; alcohol, 2 ounces; glycerine, 1½ ounces; essence wintergreen, 40 drops.

Hood's Sarsaparilla—After a careful analysis of this remedy it is believed that it does not differ materially from similar preparations.

Hamlin's Wizard Oil—Tincture camphor, 1 ounce; aqua ammonia, ½ ounce; oil sassafras, ½ ounce; oil cloves, 1 dram; chloroform, 2 drams; turpentine, 1 dram; alcohol, 3½ ozs.

Sozodont—Castile soap, 75 grains; glycerine, 75 grains; alcohol, 1 ounce; water, 5 drams; oil peppermint, oil cloves, oil cinnamon, oil anise, of each sufficient.

Kennedy's Medical Discovery—Sneezewort, 1 ounce; bitter root, 4 drams; liquorice root, 4 drams; white sugar, 4 ounces; essence wintergreen, 1 ounce; boiling water, 8 ounces; proof spirits, 10 ounces. Macerate the roots with menstruum for 48 hours, filter and add sugar.

Mexican Mustang Liniment—Petroleum, 2 ounces; crude oleic acid, ½ ounce; ammonia water, 1 ounce; naphtha, ½ ounce; brandy, 1 dram.

St. Jacob's Oil—Gum camphor, 1 ounce; chloral hydrate, 1 ounce; chloroform, 1 ounce; sulphuric ether, 1 ounce; tincture opium, ½ ounce; oil origanum, ½ ounce; oil sassafras, ½ ounce; alcohol, ½ gallon.

THE HYGIENE OF LAUGHTER

"Laugh and grow fat" has been a proverb for many generations, but its real meaning was not understood until the very end of the nineteenth century, and then only by a few. But the therapeutic value of merriment is being recognized more and more each year, and if generally understood would very sensibly increase the sum total of human happiness and healthfulness and make serious inroads upon the incomes of the medical fraternity.

Dr. D'Aiutolo, an Italian physician, was the first scientific student to call attention to the healing power of laughter, and in a paper delivered before the Medico-Chirurgical Society of Bologna, Italy, he gave the details of a number of cases of bronchial troubles cured by no other medicine than that of laughter purposely provoked for the purpose. The shaking of the chest aided the expulsion of the secretion, permitting the oxygen of the air to dry up and heal the diseased cells. The experiments in this direction by capable investigators have not been sufficiently numerous to indicate the very considerable extent to which this treatment can be utilized as a cure, but there is not the shadow of a doubt as to its value in warding off disease, as a preventative of many ailments and as a promoter of physical and moral well-being.

Of course it will be objected that a person cannot laugh when he does not *feel* like laughing, and that sickness or even slight ailments take "all the laugh out of him." It may be necessary to follow the example of old King Saul who, when he felt morose and gloomy, or felt his disease come upon him, sent quickly for his merrymakers or his musicians. These, by their merry songs or their jokes, soon restored the monarch. But it is by no means certain that one needs to send for the merrymaker, for every human being has the capacity for laughter and for creating joy within himself. In most persons it is simply undeveloped from insufficient use.

Gloom a Foe to Health. There is no greater foe to health when well, or to recovery when sick, than gloom and despondency. When a man "gives up" his chances of recovery are slight if he be troubled with a serious disease, while he who fights the disease and "knows" he will get well stands an excellent chance of recovering. But gloom and despondency can be driven away by an effort of the will at almost any time. It is not easy to forget, but it is always comparatively easy to substitute some new thought for a time, which will be equivalent to forgetting. When gloom presses down upon the heart, or one's courage is oozing out, he should betake himself to some book of jokes or pleasantries that will excite his risibles in spite of him, if he will but continue to read it for a little time. In the absence of a book of that nature, if he will but fix his mind and memory upon the funniest thing that ever happened to him in his life, or some very odd occurrence that he witnessed, he will soon find his heart rise and his blood course more swiftly through his veins. Here, of course, comes in the duty of the friend at hand or the relative near by.

Effect of Mirth on the Sick. The ancient superstition that when one is ill or miserable his friend or member of his family must commiserate him and show sympathy by partaking in his mental depression and seriousness, not to say sorrowfulness, is antiquated rubbish that will not bear the light of educated thought for an instant. Solomon of old knew and taught that a "merry heart doeth good like a medicine." While another ancient sage said: "It is better to sing and play to one who mourns than to mourn with him." This is true just as much now as it was then. If you want to be a true friend and well-wisher to the sick one, do not for an instant allow yourself to partake of his low spirits or of his sadness, but do that which would tend to arouse him, to cheer him, to make him forget for a time at least his pain or his misery. If ever you have any funny "yarns" to tell, tell them then; if ever you have any bright, hopeful, cheerful things to say, say them then. If ever you have any mirth-provoking songs, providing they are not boisterous, sing them then. It may shock the conventional devotees of society, but it will heal the bruised heart, renew the courage and mitigate and shorten the duration of the malady, whatever it may be. In the great hospital tents during the civil war, the serious demeanor of the nurses was occasionally relieved by the entrance of some bright, sunny-tempered young lady who would pass through the wards with a laugh and a smile and a hearty cheer for each poor sick or wounded comrade, and the doctor on his next rounds would always notice the decidedly improved condition of his patients. In one of the hospitals near Washington where many sick and emaciated boys from the Virginia swamps were housed, a Southern lass, who was popularly known as the "laughing sprite," was at one time refused admittance because of her noisy laughter, but the soldiers were so eager to see her happy face that she was re-admitted in spite of the protests of the sober but well-meaning nurses. Many of the soldiers declared that her jolly laugh did them more good than all the quinine in Uncle Sam's medicine chest.

How to Cultivate Mirth. The idea that no one can laugh except those who are so gifted by nature, is a superstition that can no more stand the light of modern knowledge than the "unlucky Friday" superstition or the fear of the number 13. We cultivate the serious, sober part of our nature and neglect to keep up our cheeriness and mirth, and after a while it becomes feeble from lack of exercise. The remedy is simply to practice mirthfulness, designedly for a little time, until this, too, becomes second nature to us. It will pay to do this, not only because we will thus add to our own happiness and to that of those about us, but because it will add years to the length of life and will help enormously to keep off sickness, and especially anything in the nature of epidemic diseases. The "shaking of the sides" in hearty laughter loosens the particles of partly decayed matter in the muscles and facilitates their discharge through the lymphatics or the veins. The result is added strength to resist the encroaches of disease germs. They are more easily carried away and do us no harm. Therefore, as one values health and the power to resist the attack of disease, he should

cultivate laughter and mirth and spend a little time in hunting up stories and associations that shall provoke merriment. Laugh and keep well. When any member of your family wants you to send for the doctor, administer a dose or two of the medicine of mirth. You will not only save many a doctor's bill thereby, but you will add brightness to the home, bind closer the affections and in every way improve the health and welfare of the household.

VALUE OF THE BRUSH FOOT BATH.

The wonderful value and importance of the regular or periodical foot bath is but little understood and seldom appreciated. The soles of the feet are more freely supplied with pores for the exudation of refuse matter from the system than any other equal sized space on the body. Hence it is exceedingly important not to let these pores get clogged, as otherwise the dead effete matter is taken up by the small blood vessels and goes back into the system to poison it.

How to Use Foot Baths.—They should be taken once every day throughout the year, though never, under any conditions, less than every other day in the winter. In cold weather use warm water.

Owing to the pressure upon the bottoms of the feet the exudations of the rejected matter adheres firmly to the skin, and forms a coating over the mouths of the pores. This should be removed by means of a COARSE, STIFF BRUSH, with which rub and scrub the bottoms thoroughly, for many times this coating is only partially removed without it. The bottoms of the feet are the "sluices" of the system; it is therefore more important to keep them clean and the pores open than any other part of the body.

The mother who teaches her child through its youthful days (for what is taught then usually stays with it through life) this lesson of regularly bathing the feet, teaches it a lesson that is of *far more value* to it than any other that she can impart to the child, for both health and life to a considerable extent depend upon it.

There is nothing either equal to the daily foot bath in sickness. It is of more value than all the drugs that can be taken, and it is the greatest known preserver of health.

Doctors on the Footbath. Almost all good physicians place great reliance upon the value of bathing the feet, and when called in to see a patient usually prescribe bathing the feet in warm water and usually add the advice to *soak* the feet in warm or hot water. They realize that the thick skin on the bottom of the feet is very apt to have its pores closed and hence send poisonous, effete matter back into the system through the circulation. But it is seldom that doctors realize that people when not sick have no time to soak their feet for a long time in hot or warm water, and hence they either do not think of, or else neglect, any mention of the necessity of scouring the bottoms of the feet in order to keep them hygienically clean.

MEDICINE OF MIRTH.

Truly astounding in its results. Absolutely the chief of all remedies when used as directed.

When any one of the family is ailing employ this medicine and save many a doctor bill.

"A merry heart doeth good like a medicine."—Solomon.

ONE OF THE GREATEST RESTORERS AND PRESERVERS OF HEALTH IN THE WHOLE WORLD.

The mother who has reared and trained her children to use this foot bath, as directed on page 774, has taught them a lesson that is of more value than any lesson, aye, more than any hundred lessons that were ever taught them in school or college.

DIVISION THIRTEEN.

WATER CURE—HYDROPATHY.

By J. D. Craig, M. D., Graduate of New York Hygieo-Therapeutic College.

Dr. Shew, who was one of the earliest writers on Hydropathy, or the water-cure, like all adherents of a new faith exhibited his zeal by the statement that the "system which has for its medicaments water, air, exercise, and diet, is the greatest of all medical improvements, which is destined not only to make the members of communities their own physicians for the most part, but to mitigate, in an unprecedented manner, the extent, the pains and the perils of disease."

If this prophecy has been realized only in part, and that in a more limited degree than is deserved, the reason is to be found in the exaggerated expectations and statements of the early adherents of hydropathy, by which the therapeutic range of hygienic measures was overestimated, and other remedial agencies depreciated, together with the too frequent misapplication of the hydropathic appliances through inexperience and consequent ignorance of their power for harm on the part of the laity, and often, it must be confessed, by the practitioners who were supposed to be skilled in their use.

Naturally all this produced a reaction, but nevertheless the influence of Priessnitz's systems has had a very important part in the reformation in medicine that has taken place in the last thirty or forty years. The study of hygiene received an impetus through the "water-cure system" in the days of its organized aggressiveness that laid the foundation for the system of prevention of disease that prevails to so great an extent in all schools of medicine at the present day.

The use of cold water in the treatment of disease is now very generally discountenanced in this country, for the reason that experience has shown that persons of nervous organizations, such as prevail in America, have not the reactive power of those whose muscular systems predominate.

To most patients a tepid, warm, or even hot bath is found to be much more effective as well as pleasanter, and accordingly the cold douches, packs, showers and plunges of thirty years ago have

given place to the Turkish, Russian and Moliere baths of to-day. In private practice too, even compresses are more frequently applied hot than formerly, and the drinking of cold water has given place to water as hot as can be swallowed.

This change will be apparent by comparing the early works on hydropathy with the treatment recommended in the following pages, which is the result of nearly thirty years experience of myself and others.

To the non-professional reader a word of caution will not be out of place. It is an error to suppose that when hygienic agencies alone are employed in the treatment of disease they are therefore entirely harmless. Not many poisons are capable of producing more serious disturbances than some of the applications of water when used improperly, and this holds true, to a greater or less degree, of all the other appliances of the hydropathic system. In the use of the minor measures such as the foot-bath and compresses to local parts, a wide latitude may be given, but the heroic measures, such as the wet-sheet pack, general douche, plunge and shower baths, must be used with great care.

The fundamental point to keep in view in treatment is to equalize the circulation. Cold parts should be warmed and increased temperature in other parts reduced, and this reduction of temperature is not necessarily to be accomplished by the application of cold, for this is not always the most effective way of accomplishing the object in view. Increased heat is always accompanied with a corresponding increase of circulation and consequent congestion, and although the distention of the bloodvessels and capillaries are primarily caused by disturbances in the nerve centers, the very fact of distention when continued for a time produces temporary paralysis of the muscular and other contractile tissues, such as takes place in the bladder when the urine is retained too long, and the local application of a wet compress, even when warm, if undisturbed for a time restores the tone of the vessels by removing some of the more solid constituents of the blood, by the well known law of endosmosis and exosmosis, and thus an important aid is given to the vital forces in their efforts to restore healthy action.

The armamentarium or materia medica of hydropathy consists of all hygienic agencies; but it is obvious that the subjects cover too wide a field to treat in a work of this kind, so that I shall be obliged to confine myself to the use of water, with here and there an allusion to the others as the case may demand, and before taking up the treatment of the various diseases, the following description of the hydropathic measures should be carefully studied.

Few, if any physicians of the present day confine their treatment to the hydropathic appliances alone, but use medicines to a greater or lesser degree. For reasons that need not be discussed here, and although I prefer the use of the properly selected medicines in connection with the hygienic measures, I decidedly recommend the

hydropathic appliances alone, for home treatment, for the reason that medicines should be administered by those only who have had a thorough medical education, whilst water, air, exercise and diet can be used by any one who is possessed of good fair common sense.

Any treatise on the use of water would be incomplete without general directions for bathing, and I cannot do better than to copy the notice issued by the Royal Humane Society, for the reason that the rules laid down by this body are entirely correct, and the weight of their authority will serve to more fully impress them on the reader's mind.

IMPROPER BATHING AND LACK OF BATHING CAUSES DISEASE AND THE DEATH OF THOUSANDS

Millions suffer because of ignorance of the proper method of bathing. Never bathe within two hours of eating, when exhausted, or when cooling after perspiration. Never bathe in the open air if chilliness follows the plunge, but bathe when the body is warm, provided no time is lost in getting into the water. Avoid chilling the body by sitting or standing undressed on the banks or in boats after having been in the water; leave the water at once if there is the slightest feeling of chilliness.

WET COMPRESSES

A compress consists of two or three folds of soft linen or cotton wrung out of cold, hot or tepid water, applied to the affected part, and covered by a piece of oil-silk, gutta-percha foil, India-rubber cloth or woolen, which should project a little beyond the wet cloth on all sides, so as to prevent evaporation from the linen. In parts subject to considerable motion, as the throat and neck, the edges of the oil-silk should be folded in over the wet linen so as to prevent its exposure to the air. For persons with feeble reaction, the compress may be wrung out of warm water before applying it, and in colic and other painful diseases the hot compress is more frequently indicated.

Compresses are generally best applied at night, as it is often impossible to keep them in *close apposition* while moving about. After removing them in the morning, the parts should be sponged with cold or tepid water to restore the tone of the skin.

Abdominal Compress—This consists of two or three thicknesses of linen, from about six to nine inches wide and long enough to go round the whole body, or the linen may only cover the front part of the abdomen, or even only the seat of uneasiness; this should be wrung out of cold, tepid water, or hot water, covered with oil-silk, and secured by a flannel or linen bandage with strings. This may be worn several nights in succession, the parts being well sponged with cold water, and rub with coarse towel on removing

it in the morning. The abdominal-compress is very valuable in typhoid fever; it tends to control diarrhea, checks the spread of ulceration, and so lessens the danger of perforation, or opening in the bowel. In constipation it is often a most useful adjunct and in diarrhea it relieves irritation and facilitates the cure.

Compress for the Throat—A piece of linen or flannel should be wrung out of cold water and wrapped in two or three thicknesses around the throat; this should be covered with oil-silk, and over all two or three thicknesses of flannel to maintain the warmth. When this is applied the patient should retire to bed and he will generally have the satisfaction of finding his throat-difficulty much relieved by the morning.

Chest-Compresses—In bronchitis and other inflammatory affections of the lungs or pleura, the use of wet compresses, after or before poultices, greatly aids the action of the medicines. Compresses adapted for the chest and other parts may be obtained from most Homœopathic chemists.

Sores, ulcers and tumors are often benefited by compresses. In local forms of rheumatism, as lumbago, some inflammatory affections of the knees, ankles and other joints and in sprains and other injuries, they hasten the cure.

The appearance of a rash or eruption of pimples after the continued use of the compress is regarded as favorable. If the rash be very troublesome, the compress may be discontinued and glycerine and Cologne-water in equal parts smeared over the eruption.

Spinal Hot-water and Ice-Bags—In many female derangements Chapman's spinal bags are of great utility when judiciously used. The ice-bag requires greater caution than the hot-water bag, especially during pregnancy.

TURKISH BATHS.

The Turkish or Thermal bath for the home, is something to be greatly desired. An apparatus for administering it can be made with very little trouble and expense. This bath can be given satisfactorily by any woman of ordinary common sense. Take a chair with a wooden seat, a simple office arm chair will do, and place in it a piece of flannel blanket so full that it will fall over in front and behind. Place a coffee cup one third filled with alcohol under the chair. When another vessel is used, be sure that the opening is no larger than that of a cup, as that space allows sufficient surface for the combustion of the alcohol. Have in front of the chair a foot tub containing warm water for the feet. Seat the patient, after all clothing has been removed and envelop her closely in woolen blankets. These should extend over her in front and back, outside and around the chair. These preparations completed, light the alcohol with a taper. Take no risk of burning yourself by using a match. Perspiration will begin in from three to five minutes.

Should blood rush to the head, causing a red face or fulness about the brain, place around the neck a napkin wrung from tepid water. This is preferable to douching the head, as it has the advantage of not spoiling the arrangement of the hair. With the first bath, she is liable to become faint or sick at the stomach, in which case have her drink copiously of hot water or ginger tea. Should the perspiration be slow in starting, or the heat become too intense, bathe the surface with a sponge dipped in cold water. Let her remain fifteen or twenty minutes, or as long as is necessary to induce copious perspiration. That accomplished, she can be rubbed and bathed while sitting in the chair. If feeble, and longer perspiration is desirable, transfer her to a bed or lounge, still enveloped in the blankets, where she can be bathed under cover, if need be. The manipulation should be thorough. Press, knead, pinch and squeeze every muscle in the body, using only the fingers and wrist. The use of the entire arm and palm of the hand in the process of massage makes hard work and does not give as good results. She should remain on the lounge or couch for an hour to rest, cool and sleep.

This is a simple and inexpensive apparatus, and can be constructed and used in every home. The bath should not be taken earlier than two hours after eating, otherwise it is almost impossible to start perspiration; besides it interferes with digestion. Before ten or eleven o'clock in the forenoon is the best time for invalids to take the bath. Persons engaged in business can take it upon rising in the morning or just before going to bed. There is no risk in going out after the bath as the danger of taking cold is small when the vapor bath is immediately followed by tepid or cold sponging, or still better the dripping wet sheet.

The Thermal bath can be taken at least once a week as a sanitive measure. For diseases, the frequency depends upon the case. There is usually nothing enervating about the bath, as many invalids gain strength with its daily use. It is alike valuable in health and disease. The healthy action of the skin is procured by it as by no other bath. The excretory organs are relieved, the system cleansed and healthy action procured.

The circulation of the blood is equalized and local congestions of any and every part are removed, which are the most important things to be sought in treating diseased conditions. For purifying the blood it is the quickest, easiest and most effectual means known. The blood is literally washed of impurities by it. Pure water is taken by the patient, absorbed, passed into and mixed with the blood, by which it is carried to the capillary net work of the skin and poured upon the surface in the form of perspiration, not pure as when it was taken into the stomach, but commingled with the impurities in the blood. The nervous system is soothed and tranquilized by it, and the cobwebs of care are swept from the brain, leaving it clear and refreshed. It is especially useful in the treatment of all diseases arising from impurities of the blood, inactivity

of the skin, local inflammations or unbalanced nervous action. For drug poisoning, scrofula, consumption, skin diseases, dropsy, remittent and intermittent fevers, coughs, colds, catarrh, croup, gout, rheumatism, neuralgia, bronchitis and diseases of the liver and kidneys, it is very efficient. A cold in the first stages will be broken up by it and alleviation will ensue at any stage. It should be taken about the time the chill is anticipated for ague and be given thoroughly. Few cases resist a third or fourth bath without any other means. There is no equal to it for chronic rheumatism, and for that it may be taken every day, some even have taken it twice a day with great benefit. Cases of long standing have entirely succumbed to this treatment. Nearly all the eruptive diseases are benefited by it. In pregnancy it is also valuable when there is dryness of the skin and coldness of the surface with sensitiveness to cold. Where the pregnant woman has any of the diseases named above, this bath will sometimes be found as efficacious as if she were not enceinte. If a good skillful attendant should attend her and ample time be taken to rest after the bath, no disastrous results need be feared, as the bath may be taken as often as twice a week during the entire time of pregnancy, when it is found to agree.

SPIRIT-VAPOR BATH.

This is similar to the Turkish bath, is very powerful in beneficent effects upon the whole system, and contributes not a little towards the removal of disease. It is one of the best methods of inducing activity of the vessels of the skin, and was first introduced to the medical profession more than twenty years ago, we believe, by the accomplished Prof. King; since which time, especially, it has been very extensively used as a remedial agent. One of the many advantages of producing perspiration in this way is, that it is unattended by the injurious effects which too often follow the administration of sweat-producing medicine.

The method of giving this bath is as follows: The patient is to be in a night-shirt or other clothing, to be worn only while sweating and during the night, if the bath is taken at bed-time. He is then seated on a high wood-bottomed chair, or any other, provided care is taken that the bottom is so covered that the flame will not burn him. Then a large blanket is thrown around him from behind, covering the back of his head and body as well as the chair, and another passed around him in front, pinned so loosely at the neck that he can put it on or off his face as occasion may require during the bath. The blankets must join each other at the sides and reach the floor, so as to prevent the vapor from passing off. Then a cup containing two tablespoonfuls of whisky, or any other spirit that will burn, is placed upon the floor directly under the center of the chair, and lighted by introducing from behind a piece of burning paper. The liquor is allowed to burn until consumed, and

the operation repeated one or more times if the patient does not already sweat freely enough, which he will probably do in from five to ten minutes.

If during the operation he feel faint or thirsty, cold water must be sprinkled in his face; he may drink one or two swallows, or even have his head bathed with it.

Then, when free perspiration is produced, wrap the blankets around him, put him in bed, cover him warmly and give him hot teas to drink. After two or three hours remove the covering piece by piece, at intervals of about half an hour, so that he may gradually cease to perspire.

Ordinary precautions will prevent his taking cold, and he may go to business the next day.

This mode of producing perspiration is highly recommended in severe colds, pleurisy, rheumatism, diarrhea, dysentery, feverish and inflammatory attacks, etc. In acute diseases it may be practiced once a day; in chronic, once or twice a week, according to indications of its necessity.

BATHING CHILDREN.

In bringing up children one of the most important things is the bath. Mothers often lay the foundation for sickly constitutions, solely by neglect of the bath or by improper bathing of the child. Children as well as grown people should not be bathed until some hours after meals. A time should be fixed and nothing else allowed to interfere with it. Great care must be taken to avoid draughts, and under no circumstances should there ever be any delay in enwrapping the body or in vigorously wiping it dry the very instant it leaves the water. The water should be tepid, or moderately warm, and have a handful of salt or a little boracic acid dissolved in it. With a soft piece of old linen dipped in this water, the baby's tongue, gums and roof of the mouth should be first washed, then the eyes and the head, which should be wiped dry before proceeding. It is then ready to be placed in the bath and bathed all over. It should not take over five minutes. Very little soap should be used, and that only of the very best obtainable. When through it should be taken out at once, wrapped in a large bath towel and wiped quickly. Then with a dry, soft towel rub until a slight glow appears on the skin. If the child is weak it is well to follow this by rubbing it with a sponge dipped in diluted alcohol, about a teaspoonful of alcohol to a small washbowl of water. If it is inclined to chafe, dust the parts with powder, made in the proportions of an ounce of talcum to a drachm of boracic acid. This is the best infant powder in use, and is cheaper and better than the expensive preparations sold at drug stores. The reprehensible habit of bathing children one time in the morning, and another at night, or perhaps during the day, as best suits convenience, should by all means be avoided. Likewise the habit of bathing the child, sometimes five or six times a week and again only once or twice a week, is a matter

that cannot be too severely condemned. Dr. Braithwait, a specialist on children, states that frequently diseases and deaths of children are due to improper and irregular bathing. It is highly essential that the child should be bathed at regular intervals and as nearly as possible at the same hour each day.

BATHING FOR ADULTS.

Superior Mode of Bathing. The most advantageous mode of bathing is the SWIMMING BATH, whenever an open sea, or river, or pond, or pool is at hand. Swimming should never be practiced more than once a day, and about midway between the two meals.

Sometimes and with some people ten minutes' duration of the swimming bath is even much too long, and again it may be extended to twenty or thirty minutes when accustomed to it. After the bath the skin must show a healthy glow, otherwise it will be recognized that the bath was too lengthy.

When Bathing is too Frequent. When bathing is followed by itching, or a persistent redness, or wheels, or pimples or watery heads, the person so affected has remained too long in the bath or it has been too frequent. It should be remembered that when a feeling of comfort follows taking a bath, it is of special value, otherwise not. Persons who are in a weak, debilitated condition from any cause, and especially sickly, delicate children, should have a sponge bath in a warm room or under cover. But all healthy or robust persons should have a complete bath daily in the summer; other seasons of the year every second day. Ten o'clock A. M. is the best time for taking the bath. Bathing in cold rooms and in cold water is nearly always injurious, except to the most vigorous constitutions. Sometimes people are injured from their baths because of a want of knowledge as to the proper time for bathing.

Proper Time for Bathing. Baths should not be taken for two hours after eating a meal, three is better; nor taken when one is excited, overheated or exhausted. The neglect to bear in mind these plain facts has brought on many severe afflictions. The bath may be taken in the morning before breakfast. It may be taken, though not the best time, before retiring at night, provided it is at least two hours after the meal. Bathing should be regular, the same time each day, the system then becomes accustomed to it, and readily accommodates itself to the act.

Cold, Hot or Tepid Bath. Most authorities agree on the fact that as a rule individual inclination should be consulted as to the kind of bath that is best adapted to the individual. When a cold bath is disagreeable and repugnant to a person's feelings, it is not the character of a bath he should take, and vice versa. This same rule should apply with equal force to the kind of bath that should be given children. Too much stress cannot be placed on the *regularity* of the bath, whether it comes once a day, once in two days, or less frequent. Don't

let it be haphazard. And the same rule should apply as to the regularity of the time of day the bath is taken. It should not be taken as it is often done, sometimes in the morning, then again at night; uniform periods should be adopted.

Hot Bath—Bathing in hot water is almost always debilitating and should be avoided. The pain of colic, though, is frequently relieved by immersion in a hot bath; in case of cholera the patient, also, is likely to be greatly aided by the hot bath. Fevers that fail to yield to ordinary remedies have been lowered in this way. In such cases, however, the advice of the attending physician will usually be followed. Persons in average health and children should not bathe in hot water.

Always use a bath thermometer in taking the heat of the water, as no one can judge the temperature with the hand.

Temperature of hot bath, 98° to 106° F.
Temperature of warm bath, 92° to 98° F.
Temperature of tepid bath, 85° to 92° F.
Temperature of cold bath, 33° to 65° F.

Time is almost as important as heat in the effect of a bath. Five to ten minutes is, as a rule, long enough for an invalid. Warm, dry towels must be ready to envelop the patient, and all unnecessary delay in drying and dressing after a bath should be avoided.

Alkaline Bath—Add half an ounce carbonate of soda to each gallon of water. Used for rheumatism.

Sulphur Bath—Half an ounce of flowers of sulphur to each gallon of water. Used in cases of skin irritation.

Bran Bath—Two ounces of bran to each gallon of water, mixing the bran with a small quantity of boiling water before adding it to the bath.

Mustard Bath—An ounce or more of mustard to each gallon of water. Mix the mustard in a little cold water, and add it to the bath. This is ordered usually as a foot-bath, and is excellent for headaches or cold in the head. The water should be as hot as possible. Add more hot water to maintain the heat, and the feet ought to be kept in until the skin is quite red. The patient ought to get into a warm bed immediately after, with hot bottles to keep up the heat.

Cold Sponging—This is frequently ordered when the temperature of a patient reaches 104° or over. Plain cold water or water with some ice in it may be used. Take a small cot blanket and cover the patient with it, remove the night-gown and turn the patient on to his side, roll another small blanket under him, and proceed to sponge his back. Use a large sponge, and sponge from the neck downwards with long even strokes. Sponge the back for five minutes and wipe with a soft towel, turn the patient on his back, and sponge the chest and abdomen in the same way, then the arms and legs, and last of all, with clean, fresh water, the face. The sponging ought to last about twenty minutes, but if the patient

becomes blue and collapsed it must be discontinued at once. As all exertion ought to be avoided, it is better in these cases where the sponging is frequent to have nightdresses which fasten down the back like a pinafore; they are so easy to take off and put on.

The temperature should be taken both before and after bath.

Tepid Sponging—Sometimes tepid and sometimes hot water sponging is ordered to reduce the temperature. A little vinegar added to the water is very beneficial, especially in cases of phthisis.

WATER AS A MEDICINE

How often are we liable to forget the simpler remedies to which our grandparents pinned their faith. Instead, we resort to patent medicines, spending money needlessly, and perhaps ruining our digestive organs into the bargain. The cure is in that case worse than the disease.

From the hygienic point of view there is no medicine like water. About nine-tenths of the ills of the flesh can be washed out.

Indigestion—When heated, it may be used as a medicine for indigestion. It must be hot, not cold nor lukewarm, for in the latter state it tends to nauseate. It should be sipped slowly, and in quantities of about three-fourths of a pint three times a day, an hour before each meal.

Kidneys, Liver—Hot water, besides allaying thirst more readily than cold water, washes out the liver and kidneys thoroughly if its use is continued for any length of time. One will be all the better for taking hot water at least once a day throughout life.

Inflammation—Applied as a fomentation, hot water is often invaluable for sores and inflammation. The flannel, or whatever has been dipped into boiling water, can be readily rung out in a towel.

Sore Eyes—For weak or sore eyes water is very healing. Bathe the eyes in water as hot as can be borne, then in water as cold as can be obtained. This treatment is an excellent tonic for the skin, and will serve the face and hands as a cosmetic.

A handkerchief saturated with cold water and tied about the neck overnight will be remarkably effective in relieving sore throat. After being applied the handkerchief should be covered with either a stocking or several thicknesses of flannel. (See article on distilled water.)

Nervousness—Dr. Harvey Boughton, the English nerve specialist, recently says: that all neurasthenics, that is, people with unhealthy nerves, have nothing more than nerves that are dry, and suffer from an insufficiency of fluid in the tissues of the body, which really go to make up the body.

Dr. Boughton said the best time for water drinking is at night time and early in the morning, and it is well to form the habit

of slowly sipping, during the bath and while dressing, two or three glasses of cold—though not ice-cold—water, and then to sip two or three more glasses at bedtime, and again two or three more glasses an hour or two before luncheon and before dinner.

The value of this habit will soon become apparent in the general improvement in digestion, temper and appearance.

It must be remembered that too much water at meal time, just before or soon after, dilutes the gastric juice, and if persisted in will eventually cause stomach disorder. It is better to wait a couple of hours after meals before drinking much water.

Get the drink habit. Keep a bottle of water by your office desk and go to it often. See how much water you can hold. This is nature's remedy for doldrums, nerves, premonitions and general depression.

No wine ripened for years in the cellars of Reims, no concoction produced by the most skillful chemists in the laboratory, no juice of herbs or compound of mineral can compare with nature's own beverage and medicine.

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10 HEALTH COMMANDMENTS

1. Keep your mouth closed when breathing; also when angry.
2. Drink cool water with your meals; also between meals.
3. Bathe daily; a shower if possible.
4. Eat slowly; this leads to eating sparingly. Make your meal a ceremonial pleasure.
5. Exercise daily and breathe deeply while so doing, but avoid overexertion and never eat when fatigued.
6. Never read or transact any business while eating.
7. Work ten hours, sleep eight, and use the balance for recreation and meals. Always rest on Sunday.
8. Ever keep a contented mind. Equanimity means longevity.
9. Neglect no portion of the body.
10. Moderation in all things.

THE TREATMENT AND CURE OF DISEASE

AND THE

PRESERVATION OF HEALTH

Without the Use of Medicine.

The object of this article is to teach the sick and afflicted how to apply what experience has taught to be one of the most simple and effective methods yet discovered for curing many of the worst forms of disease without the use of medicine. It consists in cleansing the stomach and alimentary canal. or intestines.

In order that those who have no knowledge of the anatomy of the human system, may fully understand what is to follow, we will say that when the food that has been taken into the stomach leaves that organ, it first passes into the small, then into the large intestines or colon, after which the refuse passes from the system. If the stomach always digested its food properly, no trouble would arise and the conditions would be different, but through the abuses of the laws of nature, the stomach is often rendered incapable of properly performing its function, and the food instead of being properly digested and prepared for assimilation, is left in the stomach in a fermented and decayed condition, and as such passes into the intestines where the absorbent vessels take up this food in its poisonous condition and it is carried through the blood, deranging every organ of the body.

On considering the colon, we find it acting as a sewer, or receptacle for the waste matter of the system. If the calls of nature were promptly attended to, these accumulations would, as a rule, only remain a few hours in the colon; but with man, business, etiquette and a hundred other excuses causes a postponement of nature's calls. From this, as well as from some other causes, this fecal matter with its impurities, is kept in the colon and constipation ensues.

And here again as above, the absorbents are at work taking up and distributing through the system, impurities, while the dried and heated fecal matter clogs in the folds of the colon, forming a crust to which other accumulations are added, until the colon is almost filled with hard putrefying matter, which remains for months and sometimes years, leaving only a small opening in the centre through which nature forces a passage.

Many suppose that because they have daily movements of the bowels, however slight, that they are free from constipation, whereas they have this affliction in its worst form, with the colon incrusted on all sides with impacted excrement of long standing, with only a small central channel, as before stated, for a daily discharge.

Dissections have been made of persons who had died from disease engendered from constipation, and in some instances from constipation itself, where the colon was found to be impacted with fecal matter that had become almost as hard as wood.

This condition of the system gives rise to a greater variety of diseases than is generally supposed. If space permitted, it could be easily explained how this disastrous condition of the system is the prime cause that produces a very great variety of the worst forms of human maladies.

To overcome these diseased conditions, two results are to be accomplished, viz.: that of removing the impurities from and cleansing the colon,

and also the stomach. In the process of purifying the colon, we skip the small intestines as we can not directly reach them. But when the stomach and colon are purified, the small intestines will take care of themselves, for the bile, acting as an antiferment, is received at the upper end of the small intestines.

TREATMENT:—Inject into the colon by means of a syringe, very slowly, water as hot as can be borne, the hotter the better, so long as it can be used with comfort—tepid water should not be employed. It may not be possible to retain but a little at the beginning. In this event the first water may be allowed to pass off, repeating the operation, each time increasing the quantity and using all the will power possible to retain it. It must be borne in mind that it is the quantity that is to effect the good result. The object sought to be accomplished is to fill the entire colon with pure hot water, so that the dried putrid excretion that is lodged in the folds of the colon, is loosened and thoroughly washed out. Use from two to four quarts at a time and repeat every day for at least a week, then less frequently until the desired result is accomplished.

A much less quantity than the above named would not suffice, as the large intestine, which is capable of great expansion and may be cultivated to receive and retain as much as a gallon of water at a time, requires a considerable amount to insure thorough cleansing.

Different positions of the body have been recommended while using the injection. Lying on the left side is one. Another is on the knees, hips up and the chest as low as possible. After a pint of water has been injected, especially if hard to retain, stop the flow for two or three minutes, and with the hands gently knead the bowels. This will break up the adhesions of fecal matter in the intestines, and cause it to fall into the current as it passes out. Continue the injection until two or more quarts of water have found its way into the intestines, then lie still from ten to fifteen minutes, after which pass the water off. Increase the heat and quantity of water if possible from day to day for a week or ten days, until three or four quarts can be retained, then wait six to eight days and see if the bowels will move naturally; that the excretion is of a soft, pasty, natural consistency, and yellow in color. If this is the case, the colon is empty, but if the bowels are inactive and the excrement hard and constipated, then the colon has not been emptied and it may take from one to six weeks longer to accomplish it, or get the hard incrusted matter removed.

The best time to use it is just before retiring at night; then after the water has passed off, rest twenty-five or thirty minutes, then inject a pint or more which retain during the night. This water will be absorbed by the organs of the system during the night, producing a very cleansing and salutary effect, all of which will insure the return and preservation of health. The victims of insomnia during this process will be visited by "tired nature's sweet restorer, balmy sleep."

The method of washing out and cleansing the stomach is to sip, from thirty to sixty minutes before each meal, nearly or quite, a pint of hot water, as hot as can comfortably be used. At first it may seem disagreeable, but after a few trials it will be taken with a relish, as it acts as a stimulant. The hot water will loosen the mucus from the lining of the stomach and in half an hour this mucus and the undigested particles will pass out with the water into the intestines, leaving the peptic glands cleansed and prepared to digest the food.

This cleansing of the stomach, by hot water, should be employed by all patients that it agrees with, after a few trials have been employed as a test.

This method of hygienic treatment, perseveringly followed, has arrested some of the most malignant forms of consumption and enabled the victims of that terrible disease to live out their three score and ten years, when they had not even one whole lung left to depend on for the support of life. The disease too was not only arrested, but the weight of the patients was increased from fifty to seventy-five pounds

DIVISION FOURTEEN.

NEW DISCOVERIES.

WONDERS OF LIQUID AIR.

The most important discovery of the last years of the nineteenth century was the discovery of the process of liquefying the atmosphere we breathe, and that at a merely nominal cost. That the air could be liquefied was known many generations ago, but the cost of securing even a few drops was more than $1,000. As early as 1857 Prof. Siemens, in Germany, first made a machine which it was thought might make liquid air, but it was not a success. Prof. Linde, of Germany, made the first successful machine in 1895. About the same time Prof. Hampson, in England, and Prof. Tripler, in America, were working on similar machines, and without knowledge of Prof. Linde's apparatus, perfected apparatus of their own which have since been improved until now it is said that liquid air can be produced in a large plant at a cost of 1 cent per gallon, and possibly at less.

Liquid air is produced by compressing air until 800 parts have been reduced to one part—800 cubic feet squeezed down to 1 cubic foot. In addition to compressing it has to be cooled. This is done by allowing a small portion of highly compressed air to suddenly expand in a tube that surrounds the tube in which the compressed air is confined. By repeating this process the air is made so cold that it finally liquefies at a temperature of 312 degrees below zero, Fahrenheit. In so compressing and cooling the air it was found necessary to first filter it, to take out all impurities and to dry it thoroughly, because any water left in it, and we all know that air contains considerable moisture, would freeze and the particles of ice would interfere with the process. So that liquid air is perfectly dry (although it looks just like water) and much purer than the air usually is. In his public experiments Prof. Tripler often spills some liquid air (accidently, of course) upon some lady's rich fine gown and he greatly enjoys the look of consternation and the little scream—"Oh! you've ruined my dress." Mr. Tripler usually steps nearer as if to see, and says, "Where?" and then throws on some more. But, of course, no spots and no dampness can be seen, for the air is dry and evaporates the instant it is thrown.

Although so very cold it may be stirred with the finger safely. This is explained in the same way as a drop of water on a red-hot stove. Instead of instantly evaporating it will roll or dance around for a while. This is because owing to the difference in temperature a portion of the drop of water forms a vapor which prevents actual contact. The great difference in the temperature of the finger and

liquid air causes a film of vapor to form which momentarily prevents actual contact and hence injury. It is but a moment, however, and woe to him who leaves it in too long. On the same principle one may touch with a moist finger a very hot flatiron, but woe if he touches too long.

The most delicate rose dipped in liquid air will not change its color. But it is frozen so hard that its petals are brittle like glass and if dropped will break in innumerable fragments. The same with a head of lettuce and other vegetables. An egg becomes so hard that the yolk is like dust or the pollen of flowers. Butter becomes so brittle that it may be pounded into a fine powder in a mortar. Ice becomes milky and easily crumbles.

Uses of Liquid Air. It is not likely that liquid air can ever be used for power or for practical refrigeration; first, because its expansive power is not great enough—it can't do more than to regain its original state, *i. e.*, 1 foot to expand to 800—while water in the form of steam expands from 1 to 1,700. Second, because of its extreme cold, freezing everything with which it comes in contact. We can hardly realize what —312° means. One of its greatest uses, however, is in surgery, and it is now used in all the great hospitals of the world.

For Operations. Patients who cannot take anaesthetics can have the parts to be cut off, or cut out (like. *e. g.*, cancers), sprayed with liquid air, which freezes them solid, when the surgeon can make a perfectly painless operation, and also perfectly bloodless. When the cutting has to be deep and where it formerly was impossible because the flow of arterial blood could not be controlled, it is now easily done by means of liquid air.

Consumption Cured. It is known that air consists of about 78 or 79 per cent. of nitrogen, and 20 or 21 per cent. of oxygen, with some carbonic acid gas and watery vapor. When liquid air evaporates, the nitrogen, being much more volatile, passes off first, so that after liquid air has been exposed for a time, the liquid remaining is very rich in oxygen. This rich liquid can be preserved much longer than the original, and can be used to enrich the air taken into the lungs of a consumptive patient. In fact, in the earlier stages of the disease, this is said to be an unfailing remedy and will, in a comparatively short period, effect a perfect cure.

Yellow Fever. Low temperature is the only thing known that will kill or render ineffective the germ of yellow fever. If a patient can be kept wrapped in ice, he usually recovers. But it is now claimed that if he is wrapped in blankets through which a can of liquid air is made to evaporate slowly, speedy recovery is almost absolutely certain, while the suffering and distress is immediately relieved.

Dyspepsia Cured. A Russian physician, experimenting with liquid air, placed a dog in a small room where the temperature was

LIQUID AIR.

This cut shows some of the marvels of the new discovery, *Liquid Air*. It looks like water, but is as dry as dust. It is so intensely cold that it will cause ice to form in a blazing fire, and yet, if a steel pen is held over it, and lighted with a match, the pen will burn like tinder. A tin dipper held in it for a few minutes becomes so brittle that it will break like thin glass. Cancers sprayed with it can be cut out without the least pain. A human body can be cremated with it completely in fifteen minutes. The following chapter explains how it is made, its various uses, etc.

gradually reduced to 100° below zero. After ten hours the dog was taken out alive, but ravenously hungry. Then the doctor, who suffered horribly from dyspepsia, tried it on himself. After ten hours' confinement in the still, dry, cold of evaporating liquid air, he found himself wonderfully stimulated. Continuing the experiments, the results were truly marvelous. Both man and dog grew fat and developed not only splendid appetites, but were able to digest their meals without the slightest discomfort.

Other Uses. Liquid air may also be used successfully in deep sea diving; or for aerial navigation; submarine navigation; as a freezing mixture around shafts or tunnels or when digging through quicksand; or in blasting; for making vacuum bulbs like the incandescent electric lamp, and for scientific experiments and investigation. It may possibly become extremely useful as an aid in burning poor, cheap fuels. But to these and kindred objects its use is limited, and to invest money in liquid-air-making companies would be a dangerous experiment, if one expected any financial returns.

WONDERS OF LIQUID AIR.

The experiments made with liquid air are so marvelous that it is not to be wondered at, that those who have not witnessed the experiments refuse to believe them. Possibly the most striking experiment is this: A quantity of liquid air is poured into an ordinary tea kettle and the kettle is set over a hot fire of coals. The liquid air boils and shoots in streams from the spout of the kettle, three or four feet high. If, then, a glass of water is poured into the kettle the water will be frozen in a few moments and the pieces of ice appear boiling about in the liquid. If, however, the kettle is lifted off the burning coals its under surface is found to be covered with frozen carbonic acid from the fire and moisture from the room. Within an inch or so of the burning coals ice had formed on the bottom (outside) of the kettle. It is so marvelous that one can scarce believe his eyesight. Yet it is true, as can be testified by many who have seen it.

Another pretty experiment is shown in Fig. 7, where a rubber ball is shown floating in a tumbler of liquid air. The vapor from the liquid air flows over the edge of the glass not rising like steam, but is easily mistaken for steam. The chill which the hand receives, however, if exposed to it, quickly convinces one to the contrary. When the rubber ball has been in long enough to get as cold as the liquid and is then taken out, it will be found as brittle as glass, and if thrown against the wall, will shatter like a thin glass tumbler.

Fig. 3 shows an ordinary tin pan or dipper, which had been immersed for a short time in liquid air. When struck against a table or any hard surface it is shattered like glass, as may be seen. Copper, on the contrary, is not affected by it. Fig. 6 shows a sponge saturated with liquid air, after most of the nitrogen has evaporated. When

touched with a lighted match on the end of a long rod the sponge explodes with violence and is torn to shreds.

Iron and steel become brittle as glass. Gold, silver, copper and aluminum are not affected. Lead becomes stiff and elastic like steel. Mercury becomes solid, like iron. Ivory, cooled in liquid air, and then held in a strong light, is seen to glow with a bright phosphorescence.

The anomaly of burning a steel pen in this very cold liquid is shown in Fig. 2. This shows a tumbler with liquid air about one-half evaporated and hence, rich in oxygen. If, now, an ordinary steel pen or a watch spring is held in the liquid and touched with a lighted match, the steel burns with the brilliancy of an electric arc. In the early experiments at preserving liquid air, a glass bulb was used, around which a large bulb had been blown (See Fig. 8) and the air exhausted from the space between. The liquid lies quietly in such a bulb without boiling. In an ordinary bulb (Fig. 9) it boils constantly while the outside of the bulb is quickly covered with ice—the frozen moisture from the air.

Value of Liquid Air Gases. Prof. Raoul Pictet, the Swiss scientist, claimed that with a comparatively simple apparatus he could dissociate or separate the constituent gases of liquid air so that with a 500 horse-power steam engine at a total cost of $74 per day he could make and separate enough liquid air to obtain daily 3,550,000 cubic feet of oxygen, 5,300,000 cubic feet of nitrogen and 3,000 pounds of carbonic acid, and that the present total value of all of these gases was over $1,500.

DISEASES SPREAD BY SALIVA

Among recent discoveries in medical science there are none more important or far-reaching than those which have to do with the prevention of contagion from ordinary diseases like la grippe, consumption, influenza, pneumonia, as well as diphtheria, scarlet fever, etc.

Hermann Koniger, the renowned German physicist, in a series of experiments conducted during the early spring and summer months of the year 1900, proved conclusively that the germs of disease, even before the disease has developed so as to be recognized, are expelled in droplets of saliva in the act of speaking or of coughing or sneezing. In a room where there is no current of air, a person could thus scatter germs to a distance of more than twenty-two feet, and to a height of more than six feet. They are even found behind the person who speaks or coughs. Ordinarily, however, they are not thrown more than a few feet from the person. They are not scattered in ordinary expiration without effort, nor in the pronunciation of vowels. It is scarcely noticeable in persons who speak in a low tone, but

GREATEST SOURCE OF CONTAGIOUS DISEASES IN THE WORLD.

How to escape catching consumption, diphtheria, scarlet fever, pneumonia and other contagious diseases.

excessive in those who stammer. It is very different in different individuals.

In the experiments, M. Koniger found that within an hour all the germs had become deposited, most of them within ten minutes or so. Before that the germs, or bacilli, were found to be held suspended in minute droplets or globules of saliva too small to be seen without the aid of the microscope. The larger bacilli, such as those of turberculosis (consumption), are carried a smaller distance and fall to the ground sooner than the lesser bacilli, such as those of influenza or pneumonia, etc., and hence contagion from the latter is the more to be feared and guarded against. He found that the simple act of placing a handkerchief before the mouth in the case of tuberculosis was sufficient to prevent the emission of saliva droplets charged with bacilli, but in the case of pneumonia it was necessary to wear a mask made of fine wool gauze over the face in order to prevent the dissemination.

During a surgical operation, said M. Koniger, no one should ever speak.

It is well known that disease germs often, even in well persons, lodge in the mucus of the mouth and throat. Repeated chemical analyses, made at the laboratories of any of our leading hospitals, of saliva from the mouths of persons having a slight sore throat or a little cold, and otherwise perfectly well, showed the presence of abundant active diphtheria bacilli, and, in some who had developed but a slight cough, the germs of the dreaded pneumonia. It is now recognized that in such cases, while the persons themselves may not develop the disease at all from the presence in the mucus of their throats of these bacilli, yet they are capable of giving the contagion to others who may be at that time in a condition of susceptibility.

The health boards of nearly all large cities have found it necessary from time to time to warn the public against spitting in public places, because they had found that the mucus thrown from the throat in the act of expectoration, when dried, consisted in active and more or less dangerous colonies of disease microbes, and that numerous serious diseases were directly traceable to this cause. In short, it is now claimed that this is the greatest cause in the world for the spread of contagious diseases.

Expectoration should always be into a moist place or into water. In that case the bacilli cannot rise into the air to be drawn in by the breath and perhaps lodge in the passage of the nose or throat and start a "germ culture" which later develops into a disease.

M. Koniger found that frequent washing of the mouth or gargling greatly diminished the number of bacilli susceptible of being detached, and thus washing and gargling have a value in contagious diseases. He found that in most cases the habit of always holding a handkerchief before the mouth when coughing or sneezing greatly diminished the liability to disseminate germs or spread contagion. This is especially true of ordinary coughs and colds, of pneumonia, diphtheria and other kindred diseases. As the result of his experiment

M. Koniger strongly urged the necessity of being on our guard against the influence of the minute droplets of saliva carrying bacilli which are expelled from the mouth in the act of coughing or sneezing, or in vigorous explosive speech.

A Chicago health officer maintains that we have just as good a right and duty to guard against the contagion caused by promiscuous spitting, coughing and sneezing in public places as we have to guard against contagion by prohibiting the slaughter and sale of tuberculous cattle for food.

In small-pox and some other diseases in which the danger of contagion is universally recognized, society has guarded against contagion by immediate and complete isolation of the patient, but in consumption, pneumonia, influenza, grip and various other diseases the contagious nature has not been fully realized and hence where we now have one case of small-pox we have many thousands of either of the other mentioned, although the time was when small-pox was more prevalent than any of the others.

HOW TO ESCAPE CONTAGIOUS DISEASES.

J. J. Richardson, M. D., in a treatise on this subject, says that when any member of a family is attacked with scarlet fever, diphtheria or any contagious disease, it may be generally prevented from extending by attention to the following rules:

Have the patient placed in one of the upper rooms of the house or at least the farthest removed from the rest of the family, where the best ventilation is to be had. The apartments should be at once cleared of all curtains, carpets, woolen goods and unnecessary furniture. Fill a cuspidor or spittoon with chloride of lime or a strong carbolic solution (a teaspoonful of carbolic acid to one-half pint of water). A large tub containing carbolic acid solution (four fluid-ounces to each gallon of water) should stand in the room for the reception of bed or body linen immediately after it has been removed from contact with the patient. The nurse should wear in the chamber a loose gown and tight-fitting cap, to be thrown off at the door, and the hands should be washed before going out, with carbolic acid water. Napkins should not be used, but in their stead pieces of rags, which can be burned. Glasses, cups, dishes, etc., must be scrupulously cleaned in a carbolic acid solution or in boiling water before they are carried away from the room. All discharges from the bowels and kidneys are to be received into vessels containing some disinfectent, such as a solution of two pounds of green vitriol to a gallon of water, or the carbolic solution, and immediately removed. A sheet, kept moistened with a strong carbolic acid solution, should be hung over the door outside, for the purpose of catching any germs of the disease which might otherwise escape.

Boiling is the surest way of disinfecting contaminated clothing, or it may be baked in an oven heated to about 240° Fahrenheit. After

the disease is over, the patient should be kept isolated for ten days after all the scabs fall off in smallpox, or after desquamation (that is, "peeling" of the skin) is complete in scarlet fever. For the last week of his seclusion, daily baths, each containing one ounce of strong carbolic acid, should be given, and every square inch of the body must be thus carefully disinfected, especially the scalp, as the disease poison is apt to linger among the dandruff at the roots of the hair.

To purify the apartment, wash the furniture, woodwork, floor and walls (scraping off the paper) with the carbolic acid solution and soap. Then shut up tightly and burn in it a pound of sulphur for every hundred cubic feet of space it contains and allow the fumes to remain in the closed room for twenty-four hours. Lastly, open doors and windows so as to ventilate freely for a week, at the end of which time disinfection may generally be considered complete.

TO AVOID CATCHING DIPHTHERIA.

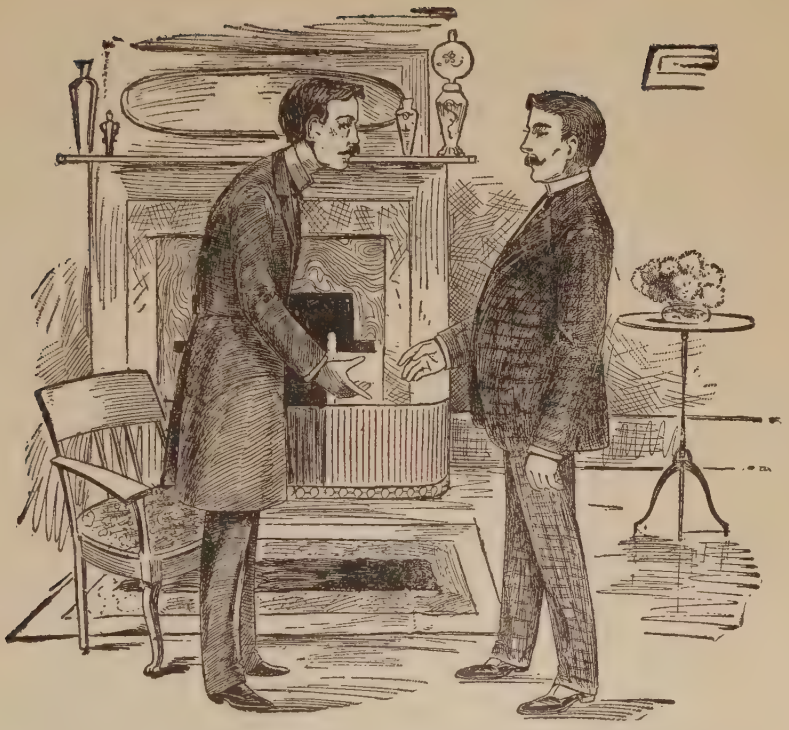
No. 1. A pan of raw sliced onions placed in a room where there is diphtheria will absorb the poison and prevent the disease from spreading. The onions should be burned or buried every morning and new ones used.

No. 2. To 1 drachm of Monsel's salt, add 3 ounces of water; add sufficient sugar to overcome the taste of the iron. Dose:—One teaspoonful three times a day. When exposure to the contagion has been of daily occurrence, give every three hours. For a child, see table of doses for children, p. 611. Dr. Bennett writes that in 130 cases of exposure to this disease, not one took it who had used this remedy.

HEALTH IN BREATHING.

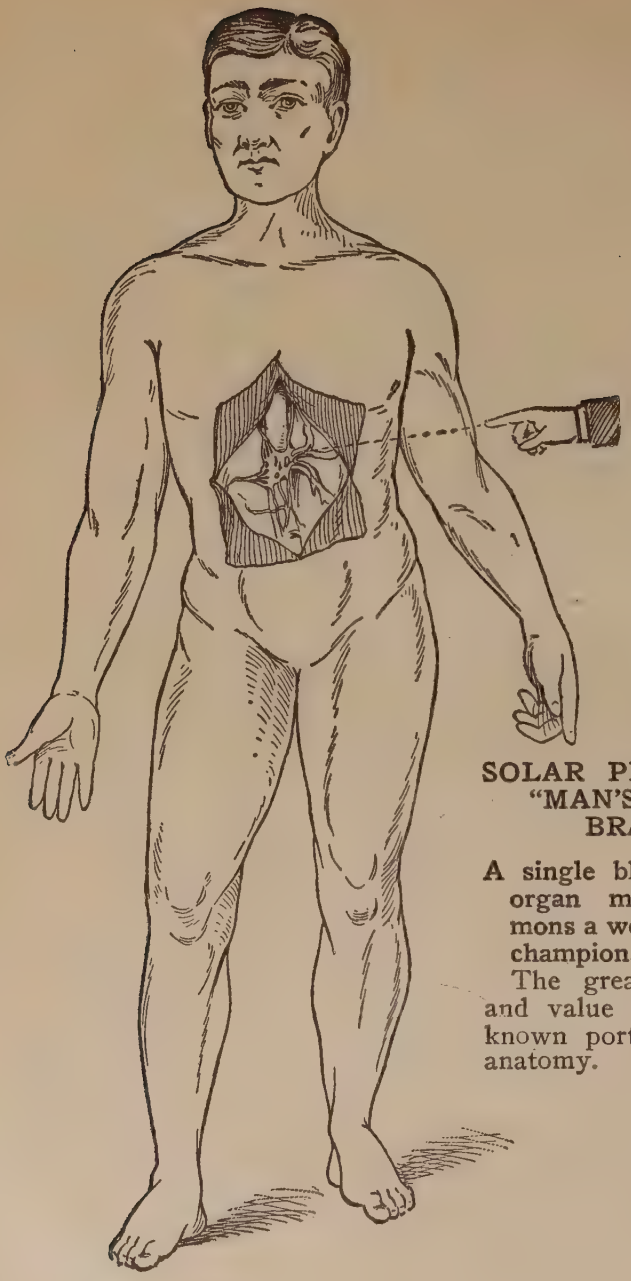
Deep Breathing. Many cases of lung trouble and of other afflictions are due to improper breathing, or rather to persons allowing themselves to fall into bad habits of breathing. Nature intends that a certain amount of oxygen must come from the air we breathe. In a natural, joyous life, nature will cause anyone to breathe in an abundance of this oxygen. But artificial habits of life, and especially despondency and work that requires much stooping or bending over, are apt to produce an apathy of the nerves and muscles that control breathing, and hence an insufficient supply of the health-giving oxygen. The remedy in such cases is easy and in everyone's hands. Moreover, it costs nothing but a slight effort, continued long enough until a correct habit is formed.

How to Breathe. The most important item in breathing is that it shall be deep and rhythmic, that is, that inspiration and expiration shall be of equal length. Watch a person asleep and note his breathing: it is as regular and rhythmic as the swish of the waves on the shore, as regular as the ticking of the clock. That is the natural



HOW DEEP BREATHING SAVES LIFE.

The proper method of deep breathing has restored many persons to good health. And life is frequently saved by it.



SOLAR PLEXUS, OR "MAN'S THIRD BRAIN."

A single blow over this organ made Fitzsimmons a world-renowned champion.

The great importance and value of this little-known portion of man's anatomy.

way; when consciousness stops controlling it, the breathing becomes natural. If, then, you are seeking health and vigor, imitate the natural.

Breathing Exercise—Of marvelous value is the deep breathing exercise, which should be taken just as regular as the morning ablution. The best place is somewhere where one can get fresh air, preferably air that the sun has shone on. Then bending back the shoulders, throwing forward the chest and upward the chin, inhale slowly just as much air as the lungs will hold. Hold in this air while you count ten. Exhale it slowly. Repeat this four or five times. Then, after a moment's rest, empty the lungs to the utmost, then draw in all the air possible, and when the lungs seem full, draw in just a little more, pack the lungs, as it were, and hold the breath while you count twenty slowly. Then exhale. You will find this a wonderfully invigorating and health preserving exercise.

SOLAR PLEXUS.

The solar plexus, frequently mentioned in the daily press, because some years since a notorious champion prize fighter was defeated by a blow over the region of this mass of nerves, is a great ganglionic network of nerves and cells, situated just behind the stomach in front of the main artery (known as the aorta) and of the fold of the diaphram. A number of lesser nervous ganglia branch off from it, ten in all, viz.: the phrenic, coeliac, gastric, hepatic, splenic, renal, suprarenal, superior mesenteric, spermatic and inferior mesenteric or epigastric plexus. The special function of this mass or network of nerve cells is not definitely known, but it is known that any injury to it, such as a severe blow, will completely paralyze the victim, while any serious disease affecting the solar plexus proves fatal.

A physician in Cincinnati, in a treatise on this subject, maintains that the solar plexus is the "third brain" of man, the complete brain consisting of three parts, the cerebrum, cerebellum and solar plexus. The latter acts as a brain whenever from any cause the other brain is incapacitated by sickness or accident, but is not subject to the control of the will.

TO AVOID EXCESSIVE INDULGENCES.

Married persons should adopt more generally the rule of sleeping in separate rooms, or at least in separate beds, as is the almost universal custom in Germany and Holland. This rule being adopted, several very important advantages would result in regard to health and comfort.

Opportunity makes importunity. For example, if pastries are where they continually attract the attention of children, there is a want

FAMILY BED ROOM.

Who should and who should not occupy the same bed. Both health and life involved in this matter. See page 803.

and a request for them; but if out of sight they would only be thought of when natural hunger came. So, if married persons slept in different rooms the indulgences would only be specially thought of when there existed a natural, healthy appetite for the same, and as food is the more enjoyable from the longer interval of fasting; so here. In this way troublesome temptations are escaped and a rational temperance would be practiced without inconvenience.

And it is well known, too, that if two persons, one sickly and the other healthy, occupy the same bed, one will become diseased without the sickly one becoming benefited. This is especially true when children sleep with old and feeble persons. Hence, it is seldom the case that both the wife and husband are in perfect health, in all respects, at all times; at least one party would be saved from injury by sleeping alone.

When two People may Sleep Together Advantageously.—Two people may often occupy the same bed to the decided benefit of both. For instance, when one is by nature full of positive electricity or magnetism, while the other's body is negative. In this case there is an insensible and gradual interchange of vital currents. The excess of positive goes out to the negative body, and it in turn gives of its over supply of negative to the positive body, and thus a normal and healthful condition is brought about. This must be the explanation of the numerous instances where a weak and semi-invalid woman marries a man not considered unusually strong and both become healthier and able to endure far more than either could before marriage. Each gives to the other without losing any essential part of themselves.

HOW CHILDREN ARE BORN EITHER BRIGHT OR STUPID.

Nearly all writers admit the power of ante-natal impressions. The effects, upon offspring, of the mother's fright during pregnancy are well known, and they are often supposed to result in the permanent deformity or idiocy of the child. These effects are frequently seen in what are called birth-marks. Equally potent, and frequently to the more observing equally patent, are the effects of loving and loathing, and the continued presence of sights hateful or agreeable to the mother. Upon these and like observations has been built what may now be called the Science of Ante-natal Education or Training. *There no longer remains any doubt that children may be born strong or weak, beautiful or ugly, talented or imbecile, good or bad, according to the will and wisdom of their parents. What would not a parent give to have his child mentally bright and physically handsome? Why, it could not be estimated in dollars and cents!*

This article should be read and studied by every parent, as none can afford to be without the information imparted here.

We should give to this the highest and most important act of our lives, whose consequences may extend to future

generations, a corresponding degree of care and painstaking. For this purpose, we should be in the highest and strongest physical health and vigor of which we are capable; and to secure this state, we should take that amount and quality of bodily exercise which are best calculated to produce it. At the same time, our mental faculties should be in their highest and most active condition. Then, the sentiment and passion of mutual love and attraction should be at their strongest, and the hour selected should be that time of the day when our whole nature is in its fullest force and highest vigor; this is not at night, when we are exhausted by fatigue, nor on waking in the morning, before our faculties are fully aroused.

Subsequent to conception, and before the birth of the child, much may be done by the mother for its future character and development. During the first four or five months of pregnancy, while nature is laying its foundation and framework, so to speak, of the future man or woman, the mother may contribute not a little to the strength and hardihoood of her child's constitution, by the faithful practice of a suitable system of exercise and regimen. Later, in the sixth and seventh months, when the brain is being formed and matured, she may stamp it with the very quality of her own tastes and pursuits. Surrounding herself with beautiful and cheerful objects, communing much with the best books and the most gifted minds, hearing the most eloquent speakers and living in the worlds of literature and art, she may give birth to a genius who will astonish the world and delight her own heart; or, reversing all this and giving her attention to the mean and the sordid, the effect will be seen in the lower and more incapable mental qualities of her offspring. As she sows in this season, so will she reap in the harvest-time of maternity.

Finally, the temper and character of her child will depend very greatly upon her own, especially during the last months of her pregnancy. Here and now she becomes almost omnipotent. Patient, serene, content, gentle, pure, unsefish, cheerful and happy, the sunny being that will be born of her will brighten and gladden all her life; while, if fretful, turbulent, discontented and unhappy during this period—and much more if she be positively vicious—she need not be surprised if she give birth to a public and private pest, that will break her own heart and be a curse to society. Nothing is now more certainly known, or better understood, among those who have given attention to this matter, than this potential effect of the moods of the mother upon the character of her child. If then she would see her children strong and healthy, graceful and beautiful, quick, sprightly, intelligent and gifted, cheerful, obedient and happy, virtuous and respected, the ornaments of society and the lights and jewels of her own heart and home, let her give heed to those immediate laws of ante-natal influence, some hint of which may be found in what we have said above.

James Russell Lowell, M. D.

PARENTS CAN HAVE THEIR CHILDREN BORN WITH NOBLE GIFTS.

On this subject Dr. Lowell wrote: *"Previous to the conceptional period more can be done for the coming child than can afterwards be done in years of school or college."*

This is the time to endow the coming child with intellectual capabilities—imparting to it either brilliancy, mediocrity or stupidity.

The law that brought into being, from among the common ranks of life, such men as Benjamin Franklin, Lincoln, Bismarck, Gladstone, Napoleon and hundreds of other gifted individuals, will do the same for all who comply with the simple, natural law.

Nature never works by chance. "The God of nature works through eternal law."

L. P. ELDREDGE'S FIRST CHILD.

L. P. Eldredge of Brooklyn, N. Y., states: "Neither my wife nor myself, previous to the conceptional period, nor during the next nine months, the period when the future child is fashioned or moulded with its mental faculties and other endowments, gave any attention to the effects that would be produced on it. But in the case of our second child, we did, and the result was a bright and intellectual child."

L. P. ELDREGE'S SECOND CHILD.

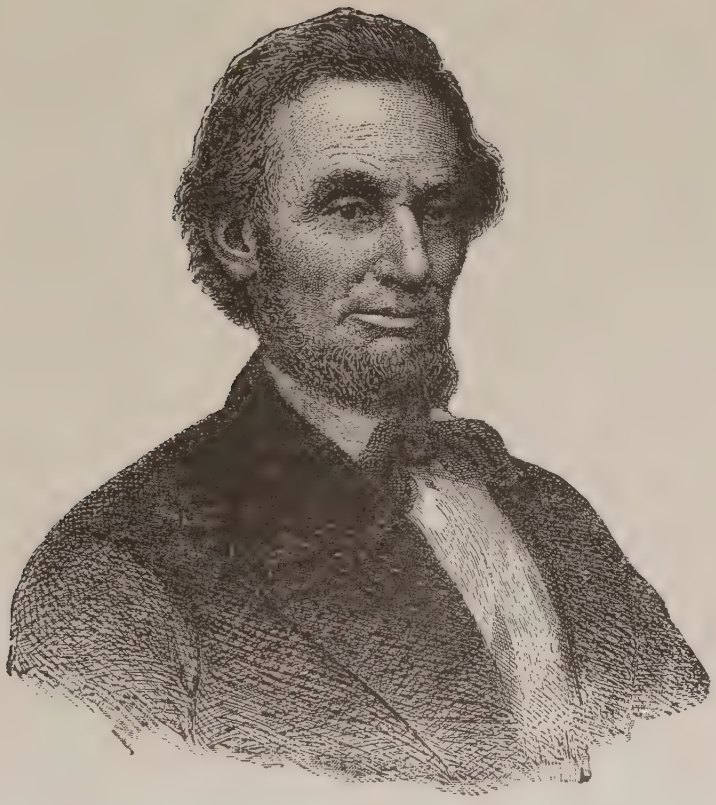
It has been fully tested and proven that children may be born talented or imbecile, with cheerful dispositions or gloomy ones, with kindly natures or harsh and sour ones, according to the will and wisdom of their parents.

Every one raising a family should read and carefully study the article on page 783.

GIFTED MEN

Parents who desire their children endowed with abilities such as the noted men illustrated on the following pages, need only inform themselves and act accordingly. Grandparents, too, may be blessed with strong, healthy, brilliant grandchildren, if they will place in the hands of their sons and daughters the means of information.

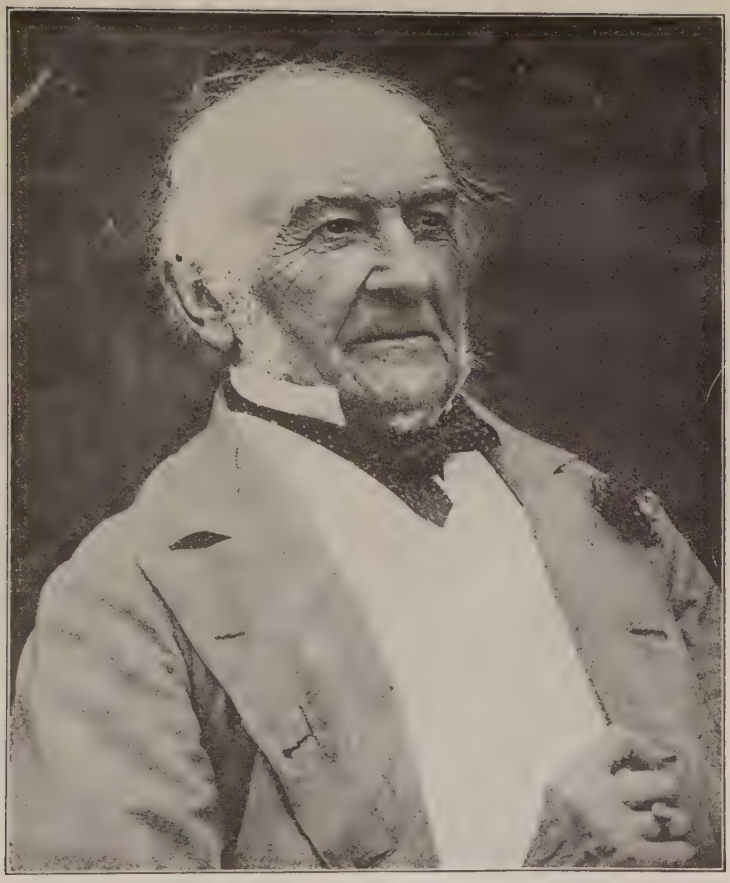
More can be done at the period of time here indicated than can be done afterwards in years at college.



Born in a log cabin, he became the most famous leader of his time.

NAPOLEON BONAPARTE.

His Parents Were Poor, Plebeian, But Ambitious Corsicans.



W. E. Gladstone

The "Grand Old Man" Was a Merchant's Son.

U. S. Grant

Born in Obscurity, He Became a Renowned Commander

CONCEPTIONAL PERIOD.

No other one thing tends so strongly to bind and hold the early affection of a married couple as the bringing into the world of beautiful, healthy, intelligent, welcome children. To bring into the world unwelcome children is one of the most awful crimes of which the parents can be guilty. It brings a curse to the child, to the parents and to the world.

But every couple may have intelligent, attractive and sweet children, if they will obey the laws of nature in the period previous to conception and during at least the first six months of the period of gestation.

Every young couple intending to enter the marriage relation should know fully what a terrible curse they are liable to transmit to their future children through ignorance of the vital principles that regulate reproduction. In the first place, no one should ever allow such a thing to happen accidentally. Physical and mental preparation should always precede that supremely important moment that may mean welfare or woe to a future human soul.

It is of the utmost importance that the body and the mind of both parents be prepared for some days or weeks before the moment of conception. Antenatal influences help, but the tendency is already implanted with the seed and the ovum at the time of conception. More than a year before the birth of the great Napoleon both his parents were absorbed in study of battle and conquest. The result was apparent. Could we know the story about all our great heroes and heroines we should doubtless find that in every instance, as we certainly do in so many, the force and power that actuated them was given by the parents, either through force of circumstances or by design, previous to the time the child was conceived.

If you desire beautiful children, fix your thoughts on beautiful things. If your desires lean more toward the intellect, employ your thoughts in study, and so in other directions. If the parents themselves are not pure in body, heart and soul, at the time of conception, they cannot hope to transmit these qualities. This attended to, it then remains with the mother to mold the infant growing within her by being herself at that time what she would like her child to be. If she does this, she can no more prevent its mighty influence upon the character of the child than she can prevent the sun from rising. And this works, unconsciously of course, both ways. Hence the terrible significance and importance of understanding and obeying this law of nature.

TABLE OF MONTHLY PERIODS.

Menses begins.	Menses ends.	Fruitful Period Begins.	Fruitful Period ends.	Barren Period Begins.	Barren Period ends.
Feb 1	Feb 5	Feb 6	Feb 20	Feb 21	Feb 28
" 2	" 6	" 7	" 21	" 22	Mar 1
" 3	" 7	" 8	" 22	" 23	" 2
" 4	" 8	" 9	" 23	" 24	" 3
" 5	" 9	" 10	" 24	" 25	" 4
" 6	" 10	" 11	" 25	" 26	" 5
" 7	" 11	" 12	" 26	" 27	" 6
" 8	" 12	" 13	" 27	" 28	" 7
" 9	" 13	" 14	" 28	Mar 1	" 8
" 10	" 14	" 15	Mar 1	" 2	" 9
" 11	" 15	" 16	" 2	" 3	" 10
" 12	" 16	" 17	" 3	" 4	" 11
" 13	" 17	" 18	" 4	" 5	" 12
" 14	" 18	" 19	" 5	" 6	" 13
" 15	" 19	" 20	" 6	" 7	" 14
" 16	" 20	" 21	" 7	" 8	" 15
" 17	" 21	" 22	" 8	" 9	" 16
" 18	" 22	" 23	" 9	" 10	" 17
" 19	" 23	" 24	" 10	" 11	" 18
" 20	" 24	" 25	" 11	" 12	" 19
" 21	" 25	" 26	" 12	" 13	" 20
" 22	" 26	" 27	" 13	" 14	" 21
" 23	" 27	" 28	" 14	" 15	" 22
" 24	" 28	Mar 1	" 15	" 16	" 23
" 25	Mar 1	" 2	" 16	" 17	" 24
" 26	" 2	" 3	" 17	" 18	" 25
" 27	" 3	" 4	" 18	" 19	" 26
" 28	" 4	" 5	" 19	" 20	" 27
Mar 1	" 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" 22	" 29
" 3	" 7	" 8	" 22	" 23	" 30
" 4	" 8	" 9	" 23	" 24	" 31
" 5	" 9	" 10	" 24	" 25	Apr 1
" 6	" 10	" 11	" 25	" 26	" 2
" 7	" 11	" 12	" 26	" 27	" 3
" 8	" 12	" 13	" 27	" 28	" 4
" 9	" 13	" 14	" 28	" 29	" 5
" 10	" 14	" 15	" 29	" 30	" 6
" 11	" 15	" 16	" 30	" 31	" 7
" 12	" 16	" 17	" 31	Apr 1	" 8
" 13	" 17	" 18	Apr 1	" 2	" 9
" 14	" 18	" 19	" 2	" 3	" 10
" 15	" 19	" 20	" 3	" 4	" 11
" 16	" 20	" 21	" 4	" 5	" 12
" 17	" 21	" 22	" 5	" 6	" 13
" 18	" 22	" 23	" 6	" 7	" 14
" 19	" 23	" 24	" 7	" 8	" 15
" 20	" 24	" 25	" 8	" 9	" 16
" 21	" 25	" 26	" 9	" 10	" 17
" 22	" 26	" 27	" 10	" 11	" 18
" 23	" 27	" 28	" 11	" 12	" 19
" 24	" 28	" 29	" 12	" 13	" 20
" 25	" 29	" 30	" 13	" 14	" 21
" 26	" 30	" 31	" 14	" 15	" 22
" 27	" 31	Apr 1	" 15	" 16	" 23

TABLE OF MONTHLY PERIODS.

Menses begins.	Menses ends.	Fruitful Period Begins	Fruitful Period ends	Barren Period Begins.	Barren Period ends
Mar....28	Apr ... 1	Apr.... 2	Apr....16	Apr....17	Apr....24
" 29	" 2	" 3	" 17	" 18	" 25
" 30	" 3	" 4	" 18	" 19	" 26
" ...31	" 4	" 5	" 19	" ... 20	" ... 27
Apr ... 1	" 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" 22	" 29
" 3	" 7	" 8	" 22	" 23	" ... 30
" 4	" 8	" 9	" ... 23	" 24	May.... 1
" 5	" 9	" 10	" 24	" 25	" 2
" 6	" 10	" 11	" 25	" ... 26	" 3
" 7	" 11	" 12	" 26	" ... 27	" 4
" 8	" 12	" ... 13	" ... 27	" 28	" 5
" 9	" 13	" 14	" 28	" 29	" 6
" 10	" ...14	" 15	" 29	" 30	" 7
" 11	" 15	" 16	" 30	May ... 1	" 8
" 12	" 16	" 17	May.... 1	" 2	" 9
" 13	" 17	" 18	" 2	" 3	" 10
" 14	" 18	" 19	" 3	" 4	" 11
" 15	" 19	" 20	" 4	" 5	" 12
" 16	" 20	" 21	" 5	" 6	" 13
" 17	" 21	" 22	" 6	" 7	" 14
" 18	" 22	" 23	" 7	" 8	" 15
" 19	" 23	" 24	" 8	" ... 9	" 16
" 20	" 24	" 25	" 9	" 10	" 17
" 21	" ... 25	" .. 26	" 10	" 11	" 18
" 22	" 26	" 27	" 11	" 12	" 19
" 23	" ... 27	" 28	" 12	" 13	" 20
" 24	" 28	" 29	" 13	" 14	" 21
" 25	" 29	" 30	" ...14	" 15	" 22
" 26	" 30	May.... 1	" 15	" 16	" ...23
" 27	May.... 1	" 2	" 16	" ... 17	" 24
" 28	" 2	" 3	" 17	" 18	" 25
" ...29	" 3	" 4	" 18	" ... 19	" 26
" ... 30	" 4	" 5	" ...19	" 20	" 27
May.... 1	" ... 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" 22	" 29
" 3	" 7	" 8	" ... 22	" 23	" 30
" 4	" 8	" 9	" ... 23	" 24	" 31
" 5	" 9	" 10	" 24	" 25	June.... 1
" 6	" 10	" 11	" 25	" 26	" 2
" ... 7	" ... 11	" 12	" 26	" 27	" 3
" 8	" ... 12	" 13	" 27	" 28	" 4
" 9	" 13	" 14	" 28	" ... 29	" 5
" 10	" ... 14	" 15	" ... 29	" 30	" 6
" 11	" ... 15	" 16	" ... 30	" 31	" 7
" 12	" 16	" ... 17	" 31	June.... 1	" 8
" 13	" . 17	" 18	June.... 1	" 2	" 9
" 14	" 18	" 19	" 2	" 3	" 10
" 15	" 19	" 20	" 3	" 4	" 11
" 16	" 20	" 21	" 4	" 5	" 12
" 17	" 21	" 22	" 5	" 6	" ... 13
" 18	" 22	" ... 23	" 6	" 7	" 14
" 19	" 23	" 24	" 7	" 8	" 15
" ... 20	" 24	" 25	" 8	" 9	" 16
" 21	„ ... 25	" 26	" 9	" 10	" 17

TABLE OF MONTHLY PERIODS.

Menses begins.	Menses ends.	Fruitful Period Begins	Fruitful Period ends	Barren Period Begins.	Barren Period ends
May .. 22	May....26	May....27	June....10	June....11	June....18
" ... 23	" 27	" 28	" 11	" 12	" ... 19
" 24	" 28	" 29	" ... 12	" 13	" 20
" ... 25	" ..29	" 30	" 13	" 14	" 21
" 26	" 30	" ... 31	" 14	" 15	" 22
" ... 27	" 31	June.... 1	" 15	" 16	" 23
" 28	June ... 1	" 2	" 16	" 17	" 24
" 29	" 2	" 3	" 17	" 18	" ... 25
" 30	" 3	" 4	" 18	" 19	" 26
" ...31	" 4	" 5	" 19	" 20	" 27
June ... 1	" 5	" 6	" 20	" 21	" ...28
" 2	" 6	" 7	" 21	" 22	" 29
" 3	" 7	" 8	" 22	" 23	" ... 30
" 4	" 8	" 9	" ... 23	" 24	July.... 1
" 5	" 9	" 10	" 24	" 25	" 2
" 6	" 10	" 11	" 25	" ... 26	" 3
" 7	" 11	" 12	" 26	" ... 27	" 4
" 8	" 12	" ... 13	" 27	" 28	" 5
" 9	" 13	" 14	" 28	" 29	" 6
" 10	" 14	" 15	" 29	" 30	" 7
" 11	" 15	" 16	" 30	July.... 1	" 8
" 12	" 16	" 17	July.... 1	" 2	" 9
" 13	" 17	" 18	" 2	" 3	" 10
" 14	" 18	" 19	" 3	" 4	" 11
" 15	" 19	" 20	" 4	" 5	" 12
" 16	" 20	" 21	" 5	" 6	" 13
" 17	" 21	" 22	" 6	" 7	" 14
" 18	" 22	" 23	" 7	" 8	" 15
" 19	" 23	" 24	" 8	" ... 9	" 16
" 20	" 24	" 25	" 9	" 10	" 17
" 21	" 25	" .. 26	" 10	" 11	" 18
" 22	" 26	" 27	" 11	" 12	" 19
" 23	" ... 27	" 28	" 12	" 13	" 20
" 24	" 28	" 29	" 13	" 14	" 21
" 25	" 29	" 30	" ...14	" 15	" 22
" 26	" 30	July.... 1	" 15	" 16	" 23
" 27	July.... 1	" 2	" 16	" 17	" 24
" 28	" 2	" 3	" 17	" 18	" 25
" .. 29	" 3	" 4	" 18	" 19	" 26
" ... 30	" 4	" 5	" ...19	" 20	" 27
July.... 1	" ... 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" 22	" 29
" 3	" 7	" .. 8	" 22	" 23	" 30
" 4	" 8	" 9	" 23	" 24	" 31
" 5	" 9	" 10	" 24	" 25	Aug.... 1
" 6	" 10	" 11	" 25	" 26	" 2
" 7	" 11	" 12	" 26	" 27	" 3
" 8	" 12	" 13	" 27	" 28	" 4
" 9	" 13	" 14	" 28	" ... 29	" 5
" 10	" 14	" 15	" 29	" 30	" 6
" 11	" 15	" 16	" 30	" 31	" 7
" 12	" 16	" ... 17	" 31	Aug.... 1	" 8
" 13	" .. 17	" 18	Aug.... 1	" 2	" 9
" 14	" 18	" 19	" 2	" 3	" 10
" 15	" 19	" ... 20	" 3	" 4	" .. 11

TABLE OF MONTHLY PERIODS.

Menses begins.	Menses ends.	Fruitful Period Begins	Fruitful Period ends	Barren Period Begins.	Barren Period ends
July....16	July .. 20	July....21	Aug.... 4	Aug.... 5	Aug....12
" 17	" 21	" 22	" 5	" .. 6	" 13
" 18	" 22	" 23	" 6	" 7	" 14
" 19	" .. 23	" 24	" 7	" 8	" 15
" ... 20	" 24	" 25	" 8	" 9	" 16
" ...21	" 25	" 26	" 9	" 10	" ... 17
" ... 22	" 26	" 27	" 10	" 11	" 18
" ... 23	" 27	" 28	" 11	" 12	" ... 19
" 24	" 28	" 29	" ... 12	" 13	" 20
" ... 25	" 29	" 30	" ... 13	" 14	" ... 21
" 26	" 30	" ... 31	" ... 14	" 15	" 22
" ... 27	" 31	Aug.... 1	" ... 15	" 16	" 23
" 28	Aug ... 1	" 2	" 16	" 17	" 24
" 29	" 2	" 3	" 17	" 18	" ... 25
" 30	" 3	" 4	" 18	" 19	" 26
" ...31	" 4	" 5	" 19	" ... 20	" 27
Aug .. 1	" 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" ... 22	" 29
" 3	" 7	" 8	" 22	" 23	" ... 30
" 4	" 8	" 9	" ... 23	" 24	" 31
" 5	" 9	" 10	" 24	" ... 25	Sept ... 1
" 6	" 10	" 11	" 25	" ... 26	" 2
" 7	" 11	" 12	" 26	" ... 27	" 3
" 8	" 12	" ... 13	" ... 27	" ... 28	" 4
" 9	" 13	" ... 14	" ... 28	" 29	" 5
" 10	" 14	" 15	" 29	" 30	" 6
" 11	" 15	" 16	" 30	" ... 31	" 7
" 12	" 16	" 17	" 31	Sept 1	" 8
" 13	" ... 17	" 18	Sept.... 1	" 2	" 9
" 14	" 18	" 19	" 2	" 3	" 10
" 15	" 19	" 20	" 3	" 4	" 11
" 16	" 20	" 21	" 4	" 5	" 12
" 17	" 21	" 22	" 5	" 6	" .. 13
" ...18	" 22	" 23	" 6	" 7	" 14
" 19	" 23	" 24	" 7	" 8	" 15
" 20	" ... 24	" 25	" 8	" ... 9	" 16
" ... 21	" .. 25	" .. 26	" 9	" ... 10	" 17
" 22	" 26	" 27	" 10	" 11	" 18
" ... 23	" ... 27	" 28	" 11	" 12	" 19
" ...24	" 28	" ... 29	" 12	" 13	" 20
" ... 25	" 29	" ... 30	" 13	" 14	" 21
" 26	" 30	" ... 31	" .. 14	" 15	" 22
" 27	" 31	Sept.... 1	" 15	" 16	" 23
" 28	Sept.... 1	" 2	" 16	" ... 17	" 24
" .. 29	" 2	" 3	" 17	" 18	" 25
" ... 30	" 3	" 4	" 18	" ... 19	" 26
" 31	" 4	" 5	" ...19	" 20	" 27
Sept.... 1	" ... 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" 22	" 29
" 3	" 7	" 8	" ... 22	" 23	" ... 30
" 4	" 8	" 9	" ... 23	" 24	Oct .. 1
" 5	" 9	" 10	" ... 24	" 25	" 2
" 6	" ... 10	" 11	" ... 25	" 26	" 3
" 7	" ... 11	" 12	" 26	" ... 27	" 4
" 8	" ... 12	" 13	" 27	" 28	" 5

TABLE OF MONTHLY PERIODS.

Menses begins.	Menses ends.	Fruitful Period Begins	Fruitful Period ends	Barren Period Begins.	Barren Period ends
Sept.... 9	Sept....13	Sept....14	Sept....28	Sept .. 29	Oct.... 6
" 10	" 14	" 15	" 29	" 30	" 7
" ... 11	" 15	" 16	" 30	Oct.... 1	" 8
" 12	" 16	" . 17	Oct.... 1	" 2	" 9
" 13	" 17	" 18	" 2	" 3	" 10
" 14	" 18	" 19	" 3	" 4	" 11
" 15	" 19	" 20	" 4	" 5	" 12
" 16	" 20	" 21	" 5	" 6	" 13
" 17	" 21	" 22	" 6	" 7	" 14
" 18	" 22	" 23	" 7	" 8	" 15
" 19	" .. 23	" 24	" 8	" 9	" 16
" ... 20	" 24	" 25	" 9	" 10	" ... 17
" 21	" 25	" 26	" 10	" 11	" 18
" 22	" 26	" 27	" 11	" 12	" 19
" 23	" 27	" 28	" ... 12	" 13	" 20
" 24	" 28	" 29	" 13	" 14	" 21
" 25	" 29	" 30	" 14	" 15	" 22
" 26	" 30	Oct.... 1	" 15	" 16	" 23
....27	Oct ... 1	" 2	" 16	" 17	" 24
....28	" 2	" 3	" 17	" 18	" ... 25
" 29	" 3	" 4	" 18	" 19	" 26
" 30	" 4	" 5	" 19	" ... 20	" 27
Oct 1	" 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" 22	" 29
" 3	" 7	" 8	" 22	" 23	" ... 30
" 4	" 8	" 9	" ... 23	" 24	" 31
" 5	" 9	" 10	" 24	" 25	Nov.... 1
" 6	" 10	" 11	" 25	" ... 26	" 2
" 7	" 11	" 12	" 26	" ... 27	" 3
" 8	" 12	" ... 13	" 27	" 28	" 4
" 9	" 13	" 14	" 28	" 29	" 5
" 10	" 14	" 15	" 29	" 30	" 6
" 11	" 15	" 16	" 30	" 31	" 7
" 12	" 16	" 17	" 31	Nov.... 1	" 8
" 13	" 17	" 18	Nov.... 1	" 2	" 9
" 14	" 18	" 19	" 2	" 3	" 10
" 15	" 19	" 20	" 3	" 4	" 11
" 16	" 20	" 21	" 4	" 5	" 12
" 17	" 21	" 22	" 5	" 6	" 13
" 18	" 22	" 23	" 6	" 7	" 14
" 19	" 23	" 24	" 7	" 8	" 15
" 20	" 24	" 25	" 8	" ... 9	" 16
" 21	" ... 25	" .. 26	" 9	" 10	" 17
" 22	" 26	" 27	" 10	" 11	" 18
" 23	" ... 27	" 28	" ... 11	" 12	" 19
" 24	" 28	" 29	" 12	" 13	" 20
" 25	" 29	" 30	" 13	" 14	" 21
" 26	" 30	" ... 31	" 14	" 15	" 22
" 27	" 31	Nov.... 1	" 15	" 16	" 23
" 28	Nov.... 1	" 2	" 16	" 17	" 24
" ...29	" 2	" 3	" 17	" 18	" 25
" ... 30	" 3	" 4	" 18	" ... 19	" 26
" 31	" 4	" 5	" ...19	" 20	" 27
Nov.... 1	" ... 5	" 6	" 20	" 21	" 28
" 2	" 6	" 7	" 21	" 22	" 29

TABLE OF MONTHLY PERIODS.

Menses begins.	Menses ends.	Fruitful Period Begins	Fruitful Period ends	Barren Period Begins.	Barren Period ends
Nov.... 3	Nov.... 7	Nov.... 8	Nov....22	Nov....23	Nov....30
" 4	" 8	" 9	" 23	" 24	Dec.... 1
" 5	" 9	" 10	" 24	" 25	" 2
" 6	" 10	" 11	" 25	" 26	" 3
" 7	" 11	" 12	" 26	" 27	" 4
" 8	" 12	" 31	" 27	" 28	" ... 5
" 9	" 13	" 14	" 28	" 29	" 6
" 10	" 14	" 15	" 29	" 30	" 7
" ... 11	" 15	" 16	" 30	Dec.... 1	" 8
" 12	" 16	" . 17	Dec.... 1	" 2	" 9
" 13	" 17	" 18	" 2	" 3	" 10
" 14	" 18	" 19	" 3	" 4	" 11
" ... 15	" 19	" 20	" 4	" 5	" 12
" 16	" ... 20	" 21	" 5	" 6	" 13
" 17	" 21	" 22	" 6	" 7	" 14
" 18	" 22	" 23	" 7	" 8	" 15
" 19	" ... 23	" 24	" 8	" 9	" 16
" ... 20	" 24	" 25	" 9	" 10	" ... 17
" 21	" 25	" 26	" 10	" 11	" 18
" ... 22	" 26	" 27	" 11	" 12	" 19
" 23	" 27	" 28	" ... 12	" 13	" 20
" 24	" 28	" 29	" 13	" 14	" 21
" ... 25	" 29	" 30	" 14	" 15	" 22
" 26	" 30	Dec.... 1	" 15	" 16	" 23
" ... 27	Dec.... 1	" 2	" 16	" 17	" 24
" 28	" 2	" 3	" 17	" 18	" ... 25
" 29	" 3	" 4	" 18	" 19	" 26
" 30	" 4	" 5	" 19	" ... 20	" 27
Dec .. 1	" 5	" 6	" 20	" 21	" ... 28
" 2	" 6	" 7	" 21	" ... 22	" 29
" 3	" 7	" 8	" 22	" 23	" ... 30
" 4	" 8	" 9	" ... 23	" 24	" 31
" 5	" 9	" 10	" 24	" 25	Jan.... 1
" 6	" 10	" 11	" 25	" ... 26	" 2
" 7	" 11	" 12	" 26	" ... 27	" 3
" 8	" 12	" ... 13	" 27	" ... 28	" 4
" 9	" 13	" 14	" 28	" 29	" 5
" 10	" 14	" 15	" 29	" 30	" 6
" 11	" 15	" 16	" 30	" 31	" 7
" 12	" 16	" 17	" 31	Jan 1	" 8
" 13	" ... 17	" 18	Jan.... 1	" 2	" 9
" 14	" 18	" 19	" 2	" 3	" 10
" 15	" ... 19	" 20	" 3	" 4	" 11
" 16	" 20	" 21	" 4	" 5	" 12
" 17	" 21	" 22	" 5	" 6	" 13
" 18	" 22	" 23	" 6	" 7	" 14
" 19	" 23	" 24	" 7	" 8	" 15
" 20	" ... 24	" 25	" 8	" ... 9	" 16
" 21	" ... 25	" .. 26	" 9	" 10	" 17
" 22	" 26	" 27	" 10	" 11	" 18
" 23	" ... 27	" 28	" 11	" 12	" 19
" 24	" 28	" ... 29	" 12	" 13	" 20
" 25	" 29	" ... 30	" 13	" 14	" 21
" 26	" ... 30	" .. 31	" ...14	" 15	" 22
" 27	" 31	Jan.... 1	" 15	" 16	" ....2[illegible]

TABLE OF MONTHLY PERIODS.

Menses begins.	Menses ends.	Fruitful Period Begins	Fruitful Period ends	Barren Period Begins.	Barren Period ends
Dec....28	Jan.... 1	Jan.... 2	Jan....16	Jan .. 17	Jan....24
" 29	" 2	" 3	" 17	" 18	" 25
" 30	" 3	" ... 4	" 18	" ... 19	" 26
" ...31	" 4	" 5	" 19	" 20	" 27
Jan ... 1	" 5	" 6	" 20	" 21	" 28
" 2	" 6	" ... 7	" 21	" 22	" 29
" 3	" 7	" 8	" 22	" ... 23	" ... 30
" 4	" 8	" 9	" 23	" 24	" 31
" 5	" 9	" 10	" 24	" 25	Feb.... 1
" 6	" 10	" 11	" 25	" 26	" 2
" 7	" 11	" 12	" 26	" 27	" 3
" ... 8	" 12	" 31	" 27	" 28	" 4
" 9	" 13	" 14	" 28	" ... 29	" ... 5
" 10	" 14	" 15	" .. .29	" 30	" ... 6
" 11	" 15	" 16	" 30	" 31	" 7
" 12	" 16	" 17	" 31	Feb.... 1	" 8
" 13	" 17	" 18	Feb.... 1	" 2	" 9
" 14	" 18	" 19	" 2	" 3	" 10
" 15	" 19	" 20	" 3	" 4	" 11
" 16	" 20	" 21	" 4	" 5	" 12
" 17	" 21	" 22	" 5	" 6	" 13
" 18	" 22	" 23	" 6	" 7	" 14
" 19	" ... 23	" 24	" 7	" 8	" 15
" ... 20	" 24	" 25	" 8	" 9	" 16
" 21	" 25	" 26	" 9	" 10	" ... 17
" ... 22	" 26	" 27	" 10	" 11	" 18
" 23	" 27	" 28	" 11	" 12	" 19
" 24	" 28	" 29	" ... 12	" 13	" 20
" 25	" 29	" 30	" 13	" 14	" 21
" 26	" 30	" ... 31	" 14	" 15	" 22
" 27	" 31	Feb.... 1	" 15	" 16	" 23
" 28	Feb .. 1	" 2	" 16	" 17	" 24
" 29	" 2	" .. 3	" 17	" 18	" 25
" 30	" 3	" 4	" 18	" 19	" 26
" ... 31	" 4	" 5	" 19	" 20	" ... 27

PARENTS MAY REGULATE THE SEX OF THE CHILD AT WILL

Every intelligent person who has kept up with the modern advance in scientific and practical discovery knows that it has been proven beyond any reasonable doubt that all parents possess the power to regulate the sex of the coming children at their pleasure.

Ever since the time of Jacob, the son of Abraham, there have been men who knew how to determine and influence the sex of the increase in their flocks and herds, but it has remained for modern times to demonstrate that a modification of the same law that governs this matter in the brute creation applies equally to the human family.

Had they known this law certain families who now have all daughters might precisely as well have had one or more sons in the place of as many daughters, or vice versa. Nature never works at haphazard but always along fixed lines, determined by inexorable laws.

The following is an article on this subject by Dr. John Van Molle:

"This subject, novel as it may appear to some, has been for many centuries past, an object of meditation and study; and extensive experiments have been made for a great number of years in several of the European states to hasten its elucidation, and foremost among those we find England, France and Belgium. Those experiments, at first made for the advancement of science only, have, of late years, become objects of speculation, and the knowledge of their results of very great value to the raisers of fine horses and cattle. We could not in so short a paper as this give the full history of those experiments; a simple glance at the main points being, we deem it, sufficient to derive the necessary conclusions for the design of our theme. The governments of the states just mentioned have instituted establishments for the purpose of raising and improving horses, cattle and other animals, and men of science have deduced from close observations, and results carefully recorded for many years, the following facts:

"1. That the young obtained from a mare, cow or sheep, etc. when very young was generally a male, when the male employed was of mature age, healthy and strong.

"2. When the female is of mature age, strong, healthy and well fed, the young is more commonly female, when the male employed is young, weak, or exhausted by too often repeated copulation.

"3 That the young obtained from the same when at mature age, strong, healthy and well fed, was in nearly equal proportion, when the male employed was in a similar condition.

"4. That the young brought forth when the female is old are generally males, when the male employed is young and strong.

"5. That the young obtained from females, when in pride, being well fed and young, were generally females, when the male was not in pride, or when ill fed, or exhausted by frequent copulation, or too old.

"6 That the young obtained from the same, when ill fed, and not in pride, were generally males, when the male was well fed, young, healthy, strong and *in full heat.*

"7. That if the female was exhausted by labor, or forced exertion

the young would be generally male, should the male employed be kept in and well fed.

"8. That the young would be female, should the female be kept at rest, and the male exhausted by labor or forced exertion.

"9. To conclude—that the offspring would more generally be male or female, according to their respective physical and pro-creative abilities (age being taken into consideration).

"From the preceding statements we derive the following deductions: Man being an animal, having physical and pro-creative faculties analogous to those of the brutes, if a set of phenomena take place among these, the same must necessarily be produced in the human species, and if certain conditions of the physical body affect the offspring, the same physical conditions must affect the offspring in man.

When it is desired to bless the household with a male child, the husband should take substantial food, moderate exercise, pass his time pleasantly in the gay society of women, read amusing books, and abstain from cohabitation for a time previous to the pro-creative period. During the same time the expectant wife should live sparingly, particularly on vegetables, fatigue herself every day, take some medicines that reduce the sexual passion, and pass her time in the dry society of old women." A common and convenient remedy for this purpose is lupulin, the yellow powder obtained by threshing hops. It should be taken in doses of six to ten grains, two or three times a day. It can also be found at drug stores. Or use spirits of camphor in two drop doses on sugar, three or four times a day; also add half a teaspoonful of baking soda to a teacupful of water, and drink it during the day.

"To have female children, the opposite should be observed; the woman should partake freely of stimulating food, using spices freely, etc., but should restrain her passion and preserve its whole force for the desired time; the male, or husband, on the contrary, should reduce his physical abilities by actual labor, and at the same time reduce his pro-creative propensities by frequent, copious cold ablutions."—[*John E. Van Molle, A. M.*

HE WOULD GIVE A FORTUNE

How often parents having only daughters, are eager to have a son, or having sons, long for a daughter. They can secure their wishes through the invaluable information contained in the above chapter on REGULATING THE SEXES AT WILL. *It has proved successful in thousands of cases both in this country and in Europe, and not only with human offspring, but likewise in the breeding of horses, cattle and other animals*

J. W. STREETER, OF PHILADELPHIA, WRITES: "I HAVE TESTED THIS SYSTEM OF REGULATING THE SEXES AT WILL TO MY ENTIRE SATISFACTION AND FIND IT TO BE ABSOLUTELY CORRECT. WE HAVE THREE BOYS AND TWO GIRLS, BORN A BOY OR A GIRL EACH TIME JUST AS WE DESIRED IT."

WM. S. COOK, OF THE SAME CITY, STATES: "WE HAVE BEEN TESTING THIS SYSTEM OF REGULATING THE SEXES OF OUR CHILDREN FOR THE PAST TWELVE YEARS AND HAVE SUCCEEDED WITH OUR FOUR CHILDREN IN HAVING THE SEXES WE PREFERRED."

CONCEPTIONAL PERIOD.—Parents who desire exceptional children can have them, but they must prepare before the period of conception. The repose of mind as well as the physical and mental purity of the father and the reading of good books immediately begin to modify the character of the seed constantly being formed in his secret parts. As *he* then is, so will *that* soon become. Likewise the mother, with pure and lofty thoughts, stimulated by reading the most noble books, influences at once the then ripening product of her ovaries. (These are constantly ripening and being discharged.) So intimate is the nervous connection between brain and secret parts that the condition of one is immediately apparent in the other. If the prospective parents desire offspring of a certain character let them first prepare themselves for some weeks before any sexual union, and let the hopeful mother continue throughout her entire period "pondering these things in her heart," as did Mary, the Mother of Jesus; and as sure as God's eternal truth the results will be marked and effective on the coming child.

AIR AND VENTILATION.

Impure Air—The impurities of the air may be ranked under two heads: gases, and matters held in suspension. From the soil are wafted into the air particles of every substance it contains. Near the dwellings of men, particles of carbon, hairs, fibres of cotton and woolen fabrics, etc., abound. The vegetable world contributes seeds, spores, germs, pollen and light floating bodies. From the animal kingdom there are also germs and particles of worn-out tissues. The organic vapors arising from the decomposition of animal and vegetable products have hitherto baffled man's attempts to discover their precise chemical constituents, and a similar obscurity attaches also to the organic substances known as the specific virus of contagious diseases. These all deteriorate the air.

Air Vitiated by Breathing—In the process of breathing, the air loses a third of its oxygen, the life-giving principle, and receives in exchange carbonic acid gas, a gas not only incapable of supporting life, but actually destructive of it. Such is the change effected by the simple act of breathing, and if this process goes on in an ill-ventilated room where there are several human beings, the carbonic-acid gas accumulates, usurps the place of the oxygen consumed, and so renders the air less and less fit to support life. Carbonic-acid gas cannot support combustion; hence a lighted candle partially or completely surrounded by it burns slowly or goes out. And so it is with human beings; when more or less completely enveloped in an atmosphere charged with this gas, all the functions of the body are tardily and imperfectly performed, the muscular tissues are enfeebled, the breathing becomes oppressed, the head aches and in extreme cases life is extinguished amidst sufferings of the most distressing nature. The fact can scarcely be too strongly stated that proper

ventilation cannot be had without a way for the egress from the upper part of a room of the impure air, and provision in the lower part for a sufficient supply of fresh air from the external atmosphere. In the greater number of dwelling-houses no direct provision at all has been made for this purpose, and the only ventilation obtained is due to the imperfect fittings of the windows and doors. The floors are covered with carpets, the windows and doors made as impervious as possible to the air, and in the ceilings no apertures exist for the escape of carbonic-acid gas. From this all classes of the community suffer almost equally.

Airy Sleeping-Rooms—The fact that carbonic acid gas endangers health and life shows the importance of making provision for its uninterrupted removal from our houses and places of assembly, and above all, from our sitting-rooms and sleeping-rooms. Airy, well-ventilated sleeping-appartments should be ranked with the most important requirements of life, both in health and disease. Bed-rooms, in which about one-third of human existence is passed, are generally too small, and are crowded and badly ventilated. The doors, windows, and even chimneys, are often closed, and every aperture carefully guarded so as to exclude fresh air. The consequence is, that long before morning dawns the atmosphere of the whole apartment becomes highly injurious, from the consumption of its oxygen, the formation of carbonic-acid and the exhalations from the lungs and the relaxed skin. In an atmosphere thus loaded with effluvia the sleep is heavy and unrefreshing. There are some diseases in which the cause of death is simply the accumulation of carbonic-acid gas in the blood; and this condition is brought about to any person in some degree, in every badly ventilated bed-room. If provision were made for the admission of fresh air and the escape of impure air the sleep would be lighter, shorter and more invigorating. In most cases the door of the bed-room may be left open, and the upper part of the window let down a few inches more or less according to the state of the weather—with perfect safety. Currents of air may be kept off the face of the sleeper by placing the bed in a proper situation, or by suspending a single curtain from the ceiling. During thick fogs or severe winds the out-door openings may be closed, and ventilation secured from the adjoining hall.

The importance of the subject is very correctly and very strikingly put by a medical writer of the last century: "If any person will take the trouble to stand in the sun and look at his own shadow on a plastered wall, he will easily perceive that his whole body is a smoking mass of corruption, with a vapor exhaling from every part of it. This vapor is subtile, acrid and offensive to the smell; if retained in the body it becomes morbid; but if re-absorbed, highly deleterious. If a number of persons, therefore, are long confined in any close place not properly ventilated, so as to inspire and swallow with their spittle the vapors of each other, they must soon feel

its bad effects." Unpleasant as it is to dwell on such a subject, it is yet true that the exhalations from the human lungs and skin, if retained and not diluted with a continuous supply of oxygen (the active agent in all disinfectants), are the most repulsive with which we can come in contact. We shun the approach of the dirty and the diseased; we hide from view matters which are offensive to sight and smell; we carefully eschew impurities in our food and drink, and even refuse the glass that has been raised to the lips of a friend. But at the same time we resort to places of assembly and draw into our lungs air loaded with effluvia from the lungs and skin and clothing of every individual in the promiscuous crowd; exhalations offensive to a certain extent from the most healthy individuals, but, rising from a living mass of skin and lung in a state of disease and prevented by the walls and ceiling from escaping, injurious and repulsive in the highest degree.

Ventilation Essential—The great practical inference is, that the only means of preventing persons from poisoning themselves and others is to insure their being constantly surrounded by fresh air; otherwise, low fevers may result, and such acute diseases as scarlatina, measles, small-pox, etc., may be excited in epidemic forms, often marked by malignant symptoms. The air of an apartment containing several human beings, if unchanged, not only becomes charged with carbonic-acid gas, but also, as before stated, impregnated with animal particles which fly off from the skin and lungs, so minute as scarcely to be detected by the microscope, which taken by the breath into the lungs may be absorbed and develop the worst forms of scrofula and consumption. But if these particles are given off from persons affected with or recovering from small-pox, scarlet fever, whooping-cough, typhus, etc., they will exert a still more injurious influence upon the health, and probably generate again the diseases from which they emanated.

Ventilation of Schools—The sanitary arrangements of many schools are notoriously bad. The buildings used for such purposes are often unsuitable, and in space and windows very inadequate. This applies often both to the school-rooms and the sleeping-rooms, which are over-crowded and badly ventilated, causing loss of appetite, headaches and general delicacy—effects often attributed to overwork, but in reality due to want of fresh air. Parents should always inspect the rooms and ascertain their size, the position of the windows and fireplaces and other facilities for ventilation, with the average number of occupants. A rough but suggestive test of the ventilation of a school-room may be secured by entering it after it has been occupied some two hours, and comparing the difference between the air of the room and that out of doors.

Badly Ventilated Churches, etc.—It is important to remember that an assembly in an ill-ventilated church, court of law, school-room, theatre, ball-room or evening party may include some

yet unsafe convalescents from the contagious diseases previously mentioned. The only security we can suggest is, as far as possible to avoid all places of public resort or private gatherings in which the most ample provision is not made for the admission of fresh air and for the uninterrupted escape of air spoiled by carbonic-acid gas or animal exhalations. In the section on small-pox it will be seen that in a recent epidemic the greatest success attended the treatment of patients absolutely in the open air in mild weather, and with the windows and doors constantly open, day and night, in the coldest months of the year. In the cure of general diseases, too, pure air exercises a very potent influence. Jackson, writing on the Peninsular war, states that more lives were destroyed by accumulating sick men in ill-ventilated apartments than in leaving them exposed to severe weather by the side of a hedge or common dyke; showing the priceless value of fresh air.

SUNLIGHT.

The importance of sunlight for physical development and preservation is not duly appreciated. Women and children, as well as men, in order to be healthy and well-developed, should spend a portion of each day where the sun can reach them directly, this being particularly necessary when there is a tendency to scrofula. Just as sprouts of potatoes in a dark cellar seek the light and are colorless until they come under its influence, and as vegetation goes on but imperfectly in places where sunlight does not freely enter, so children and adults who live almost entirely in dark kitchens, dingy alleys and badly lighted workshops are pale-cheeked and feeble. And it should be said that houses are only fit to be occupied at night that have been purified by the sun during the day. It has been pointed out by Dr. Ellis that women and children in huts and log-cabins which contain only one or two rooms remain healthy and strong; but that after the settler has built a house and furnished it with blinds and curtains, the women and children become pale-faced, bloodless, nervous and sickly; the daughters begin to die from consumption and the wives from the same, or from some other diseases peculiar to women. At the same time the adult males who live chiefly out of doors continue healthy.

The value of sunlight for animal development may be illustrated by such facts as the following: In decaying organic solutions, animalcules do not appear if light is excluded, but are readily organized when it is admitted. The tadpole kept in the dark does not pass on to development as a frog, but lives and dies a tadpole and is incapable of propagating his species. In the deep and narrow valleys among the Alps, where the direct rays of the sun are but little felt, cretinism, or a state of idiocy, more or less complete, commonly accompanied by an enormous goiter, prevails and is often hereditary.

How to Prepare a Room for Sun Baths. The simplest arrangement for sun bathing is to choose the smallest and most quiet room in the house which has two or more high windows. The lower part of the windows may be protected by sash curtains or the glass rendered opaque, so no one can see in from the outside, by rubbing it freely with soap, or covering it with whitewash. It is better, but not necessary, to replace the window panes with ground glass or blue glass, if these can be obtained readily. At the opposite side of the room from the windows should be placed one or more of the largest mirrors or reflectors available, so arranged as to reflect the light toward the chair where it is proposed to sit during the bath, care being taken that the sun's bright rays do not fall directly upon the mirror. The chair may be a cane or rattan or any other open-work chair that will offer the least interference to the sun light striking the body. A weak, sick or crippled person might better recline in a hammock of some light open net-work. The room of course must be well warmed in cool or cold weather. When about to take the sun bath all clothing must be removed and the nude body presented to the sun's rays. It is, of course, necessary to continue long enough in any one position to permit the light to penetrate, which it will do in from five to fifteen minutes. The bath itself may be prolonged from a brief ten or fifteen minutes to an hour, or several hours, according to the person and conditions.

If the effect is in any way disagreeable the duration of the bath must be shortened. It may be taken any time of the day most convenient while the sun shines into the room prepared for the purpose. If one suffers from any chronic complaint he should take the bath daily, taking care to have longer exposures in cloudy than in fair weather. The actinic rays of the sun can reach the body when clouds interfere just as they reach the photographer's sensitized plate and enable him to take a picture on a cloudy day, but it takes a little longer. The actinic rays, and most of the light rays, pass right through the clouds. It must be remembered that in taking a photograph the picture is made by the power of the actinic rays of the sun to decompose chemicals. You cannot take a picture without the use of chemicals. Our bodies are full of chemicals, oftentimes of such as are injurious and clog the system. Some of these are decomposed by the sun in the sun bath and are thus rendered harmless, or changed so that the system can throw them off naturally and easily.

To make the sun bath most effective it is desirable to have the reflecting mirrors on two sides or three sides of the person, providing they can be had, and it is better to have them covered with blue glass, because blue glass lets through more readily than other glass the actinic rays and intercepts the others. But the blue glass is not absolutely necessary. It is an advantage to have all the windows which admit sunlight into this room provided with blue glass, but this is not essential. The essential thing is to have the sunlight and plenty of it strike the skin on all parts of the body and especially over the region of the vital organs.

How to Take a Sun Bath. Before entering a room in which

the sun bath is to be taken, the entire surface of the body should be sponged off with warm water (as warm as can conveniently be borne without discomfort), in which a few handfuls of salt have been dissolved, and immediately after sponging wipe thoroughly dry Then, sitting upon a plain wooden or leather covered stool, or reclining in an open net-work hammock, the nude body should be exposed to the action of the sun, taking care that every portion of the body receives the sun's direct rays undisturbed for at least ten minutes at a time. If there is serious discomfort at first, it may be avoided by anointing the body after the sponging, with olive oil or a little vaseline. The exposure, if not agreeable, may at first be for a shorter period, gradually extending it to as long a time as circumstances will permit.

A First-Class Sun Bath Room. The very best place to take a sun bath is in a separate room on the ground floor built like a modern green house, with the exception of the moisture. The room need be no larger than one person can comfortably sit in. The sun bath room must be kept dry, for while moist warmth promotes plant growth, it does not promote flesh growth. The room in winter should be heated by having pipes or flues extending into the room which at their other end are connected to a tin or galvanized iron drum set over a stove. (There should be no stove in the room.) The drum should be considerably larger than the stove and set over it like a hood. The air within this hood is dried as well as heated, and rises through the pipe or flue extending from the top and passes readily into the room to be warmed.

A convenient location for such a room is on the porch, providing that fronts the south or east; or equally favorable is an alcove or bay window which may easily be transformed into a sun bath room by shutting it off from the rest of the room by a partition or heavy dark curtains and putting blue glass panes in the place of the ordinary panes in the windows. It may be further improved by making the roof or a part of it of ground glass or blue glass.

Various other methods of preparing more or less convenient and appropriate rooms will suggest themselves to the reader, keeping in mind always that it must be a place where the direct rays of the sun can enter freely and from more than one direction. One man in New York takes his sun baths in a corner of his own greenhouse. It is essential that the sunlight fall all about the person during the sun bath. It is also essential that care be taken to avoid any feelings of discomfort during the bath. Thus, during the heat of summer, some fabric of white or blue color should be interposed or stretched over the glass to moderate the strength of the rays, which otherwise might do injury. During the summer months it is best to take the baths in the early morning. There is no longer any doubt of the efficacy of the sun bath provided it is persisted in. The apparent failure of the blue glass craze in 1878 was due to the fact that people expected immediate and marked results, and also to the further fact that they expected the sun's rays to penetrate the clothing, most of which is of a color that intercepts the actinic, which are the healing, rays.

As a Protection from Disease—During the prevalence of certain epidemic diseases the inhabitants who occupy houses on the side of the street upon which the sun shines directly are less subject to the disorder than those who live on the shaded side. In all cities visited by the cholera the greatest number of deaths come in narrow streets, and on the sides of those having a northern exposure, where the salutary beams of the sun are excluded.

Except in severe inflammatory diseases of the eyes or brain the very common practice of darkening the sick-room is a very imprudent one. The restorative influence of daylight is thus excluded, and also the grateful and natural succession of light and darkness which favors sleep at the appropriate time and divests the period of sickness of the monotony and weariness of perpetual night.

Essential to Physical Development—Sunlight is important in the development and preservation of the physical system. In confirmation of this statement we have only to refer to the fact that children who are kept in dark alleys, cellars, factories and mines are frequently afflicted with rickets and various deformities and swelling of the bones, and especially with troubles of the spine. This occurs not only among the poor, who live in dark, damp places, but among the rich, who live in fine, dry, airy dwelllings, but keep their children a considerable portion of the time in-doors, secluded from the sun's light and deprived of exercise. As vegetables lose their healthy color and strength when deprived of sunlight, so with children: Their muscles become soft and delicate, the nervous system deranged, the digestive organs enfeebled, the blood watery and pale, and the skin loses its healthy, ruddy complexion and has a pale, sickly hue. People who live in houses much shaded by trees are more subject to certain forms of disease than those whose dwellings are freely exposed to the sun. Shade-trees should be at a distance from the house, that they may afford a grateful retreat for the hot days, and never so near the house as to shade the buildings or the windows. A model situation, in respect to external ventilation and sunlight, is exemplified in the illustration on page 56.

Admit Sunlight to Rooms—When the ladies of this country take as deep an interest in their own healthful development and the well-being of their children, as they now do in the elegant gloom of their parlors, and will give free admittance to the life-giving light of the sun during the entire day, regardless of the fact that it may dim the bright colors of the carpets and hangings, thinking more of dissipating dampness, mould and the effluvia of human bodies—those fruitful causes of disease—than of preserving by darkness the seeming freshness of their furniture and apartments, we shall have fewer unhappy families, fewer mothers will wear their lives out in the servile care of puny and sickly children, and fewer husbands will find their severest toil in the nursing cares of their home and be obliged to return to their business or labor in the morning more wearied than they left it the previous evening;

SUN BATH

New methods of using sunbeams for curing disease. See page 831.

Restores the feeble and invigorates the debilitated better than any drug remedy ever compounded by the druggist. The Ultra-violet rays admitted through quartz glass have wonderful healing qualities.

If nature has a panacea for human ills and a prevention of every human ill, a universal remedy—that potent draft is sunlight.

Right now we know that sunlight will cure as well as prevent rickets; will both cure and prevent tuberculosis in man and beast; will cure some cases of cancer; will heal old ulcers that other measures will not heal; will cure some skin conditions, and will favorably influence the thyroid gland.

It has the power to build up simple, chemical compounds into the red coloring matter of the blood; into the green coloring matter of plants and into the various ferments, vitamines and organic chemicals found in them.

The power to analyze or to change higher compounds into lower ones is common, but there are only a few agencies that can build simpler compounds into higher ones. That, light can do.

The length of the vibrations of light range from almost inconceivably short ones to the lengths that are used in the radio. The eye can only recognize a small part of this ray. The great bulk of it lies above and below what the eye can see. About those parts of the ray which can be seen we know much.

Rollier of Switzerland, who has written special articles on sunlight treatment for the British Journal of Tuberculosis, and who has treated people with this method in Leysen, Switzerland, for many years, says the best methods of treating acne, pimples, blackheads and facial blemishes is by the sunlight method. It should be easy to put this statement to the test. Along the beaches on any hot day there are thousands of people garbed in a way that makes observation of the skin easy.

Rollier says that sun pigmenting is a cure for all of the great group of skin diseases which result from poor nutrition of the integument. It is likewise good for poorly nourished muscles. It is much the best remedy for varicose ulcers, old sores and fistulous tracts. The forms of tuberculosis in which it is most helpful are scrofula, gland tuberculosis, skin tuberculosis, and bone tuberculosis. It should not be used in cases of lung tuberculosis that are in the fever stage. In other cases of lung tuberculosis, it must be used cautiously.

Treatment—The sunlight treatment is begun by exposure of the feet to the open sunshine for five minutes on the first day. The foot is selected because it is the part of the body farthest removed from the disease. One week from the first day of exposure, the schedule of treatment calls for:

Back, 5 minutes; chest 10 minutes; abdomen, 15 minutes; thighs, 20 minutes; legs, 25 minutes; feet, 30 minutes.

In summer time the treatments are given between 6 and 9 in the morning. In winter, they can be given any time.

The Ultraviolet rays sunshine when admitted through quartz crystal glass give more powerful healing qualities. Usual size of glass 5 by 7 inches.

IMPORTANCE OF PHYSICAL EDUCATION.

A proper development of the physical system should be ensured during childhood and early youth, for otherwise the opportunity is in a great measure lost forever, and a comparatively puny and delicate body and a life-time of suffering and disappointed hopes are almost inevitable. But if the intellect be neglected during the same time, while a healthy body is secured, the result is much less serious. An individual may not even know his letters at the age of sixteen or eighteen years, and yet with industry get a good practical education. The following important facts are lost sight of, or not known or attended to by many parents and educators, namely: If we strive prematurely to develop the intellect of a child by undue application, an unnatural flow of blood is directed to the brain to supply the great activity and consequent waste which are thus created in this organ; therefore, the rest of the body suffers, because an excessive amount of blood has been diverted from its legitimate uses. Nor is this all, for the premature development of a part of the system is necessarily but an imperfect development of even that part. For this reason we rarely hear of our precocious children in after life as distinguished men or women. It is a matter of no small surprise to many that such "smart children" do not attain a higher rank in after life.

Consequence of Neglect.—The secret lies in the fact before stated. No one disputes the very great importance of physical education for the young; yet we have but to look around us at the puny, pale-faced, deformed children to see how fearfully this important part of education is neglected. And this is not only the case with young children; the neglect extends to older ones; to the students in many of our higher institutions of learning, in which many of the teachers are very censurable for permitting their studious pupils to work too much, and to have too many studies at the same time, to the neglect of physical culture. We are glad that in some few of our cities and towns men are becoming awakened to the importance of this matter. A change is greatly needed in our system of education, from the common school up, for in its present condition it is productive of much disease, insanity and physical deformity.

Students Principal Sufferers.—It is melancholy, indeed, in our institutions of learning to see so many puny-looking young men and women: hollow chests, round shoulders and bending body are characteristics of our students, and premature old age and disease carry off but too many of our most gifted men and

women. In some of our female institutions of learning as high as thirty-seven per cent. of those who had been attendants have died within two years after leaving school. Students as a general rule are inclined to become listless and indolent; therefore they should be required, as a matter of duty, to spend several hours during the middle of the day in regular, active, systematic exercise and physical training, with active amusements. A double advantage is thus derived; for being occupied a portion of the time during the day they will be compelled to spend their evenings at study, instead of in dissipation and folly. No doubt our present system of education is very imperfect, though the day of its radical amendment may be distant. The force of example and training seems all-powerful. Teachers are educated to teach, and cannot well help teaching as they are taught. The orthodoxy of education is of the most proscriptive sort. To differ, to innovate, to adapt instruction, either in kind or degree, to the capacity and mental bent of the pupil would be certainly a perilous experiment, even could a teacher be found sufficiently bold and original to design and attempt such a thing. No doubt he would be ostracised, both by the profession and the patron. We want our children educated in the good old way; their minds stretched upon the rack which cracked the mental sinews of their fathers and mothers; their intellectual stature adapted to the proportions of the old Procrustean bed; their education to result in mental uniformity. Of course we all see that this is silly; that it would be quite as reasonable to design and seek to compass for our children an equal measure of physical strength and weight; that the higher mathematics, the dead languages and many of the arts now attempted to be taught in the public schools are totally impracticable—not to say useless—to the large majority of the pupils; but we go on in the same old fashion. Every child must be classed and graded and put through the same mechanical drill. It is quite certain that many are stultified and some ruined by the process. But that makes no difference, it is the fashion; it is the accepted theory of our age and country that all children should be educated, and educated in the same way. Of course both these propositions are outrages upon common sense. The vast majority must be "hewers of wood and drawers of water," laborers and common servants; and their partial or complete education, even were the latter practicable, which it is not, must defeat the ends of civilization, and more or less disorganize society. Such has been the effect hitherto; it is patent to the observation of all men; servants and laborers are growing scarcer, and idlers, vagabonds, tramps, thieves and robbers being multiplied year by year. This is the natural and necessary effect of the system of popular education; the servant is made to feel himself as good as his master, and the laborer quite the social equal of his employer. What wonder that these scorn service and labor and prefer to live by their wits?

1. Warming up exercise; raise right and left hand alternately and briskly eight times and back..
2. From hands overhead bring down to clasped position back of knees; keep heels on floor.
3. Wide step to right, bring hand up and bend body to left. Alternate, bringing left hand up and bending body to right.
4. Step forward with right foot, hands up; bend body backward, alternate with left foot forward.
5. Step as far forward as possible and grasp thigh with both hands; back to position. Then alternate.
6. Bend knees; bring hands up from side to overhead.

7. Feet astride and arms extended, bring them to swing, as illustrated.

8. Feet apart; bring right hand to left foot. Alternate, left hand to right foot.

9. Feet astride, hands up; then hop, stride., hop, stride, bringing feet together on hop.

10. Sprinter's stride; hands on ground, hop from one foot to other, bringing alternate foot forward.

11. Flex knees to abdomen, pulling them in with hands. Alternate; then bring both knees up together.

12. Bring feet overhead, and then come to sitting position as in 13.

13. See 12.

Fig. 1. From Position bring hands up and outward in wide circle until backs of palms reach overhead, inhaling as you bring hands up; exhale as you bring them down. Do slowly five times.

Fig. 2. From Position bring hands to shoulders, fingers turned in; knuckles out; elbows close to body. Do five times.

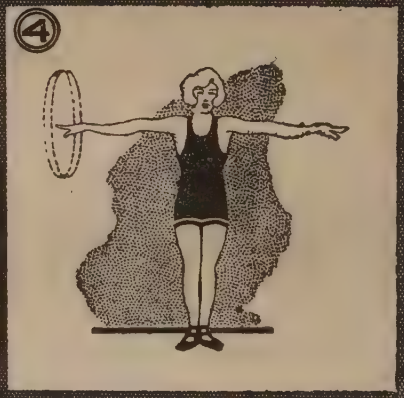


Fig. 3. From Position bring hands up to almost straight line on chest, elbows in line with shoulders, wrists straight, palms down, fingers nearly together; fling arms out wide. Back. Do five times on sharp command.

Fig. 4. From Position extend arms full length; keep rest of body firm; begin to make circles with extended hands and arms; begin with small ones and increase to circles of as large dimensions as you can.

Fig. 5. Assume good standing position, bend trunk forward until it is at right angles to legs; exhale on downward move; back to position, inhaling.

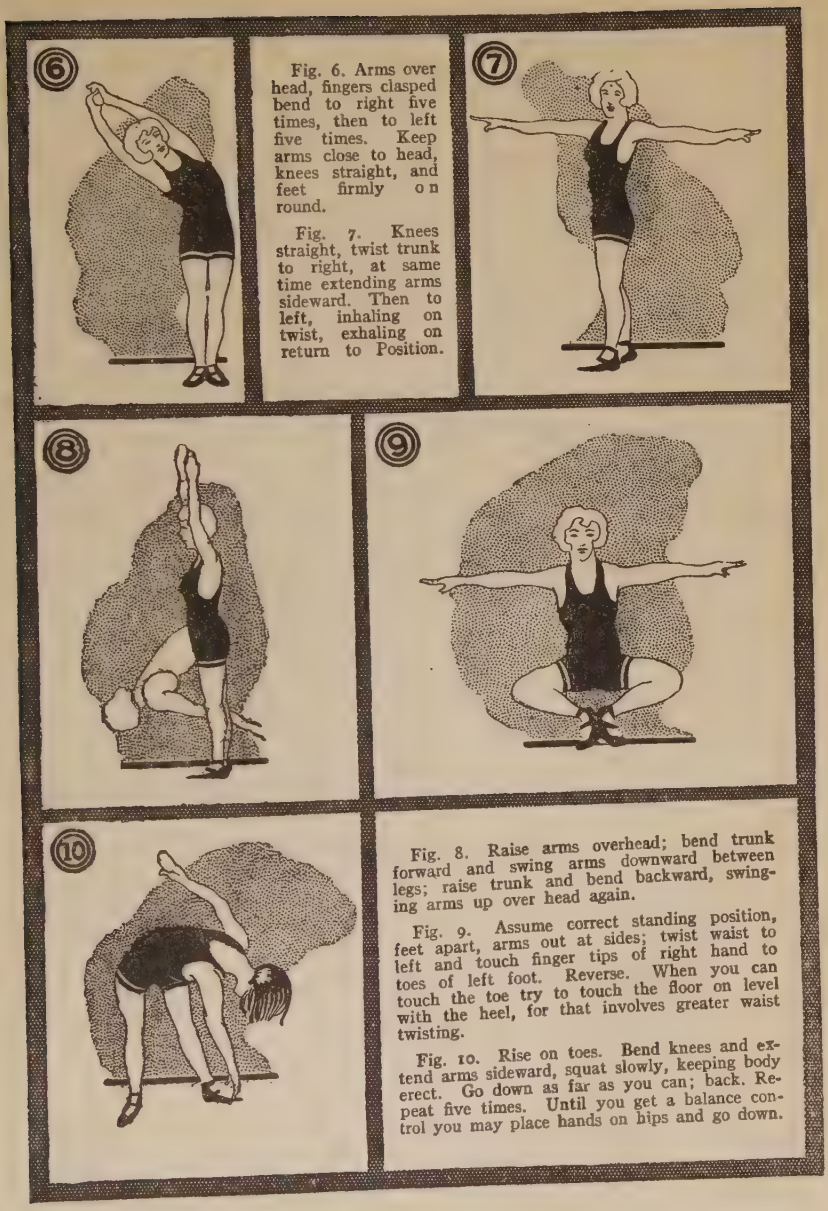


Fig. 6. Arms over head, fingers clasped bend to right five times, then to left five times. Keep arms close to head, knees straight, and feet firmly on round.

Fig. 7. Knees straight, twist trunk to right, at same time extending arms sideward. Then to left, inhaling on twist, exhaling on return to Position.

Fig. 8. Raise arms overhead; bend trunk forward and swing arms downward between legs; raise trunk and bend backward, swinging arms up over head again.

Fig. 9. Assume correct standing position, feet apart, arms out at sides; twist waist to left and touch finger tips of right hand to toes of left foot. Reverse. When you can touch the toe try to touch the floor on level with the heel, for that involves greater waist twisting.

Fig. 10. Rise on toes. Bend knees and extend arms sideward, squat slowly, keeping body erect. Go down as far as you can; back. Repeat five times. Until you get a balance control you may place hands on hips and go down.

The best time to exercise is in the morning, upon rising and before an open window, in dress that is unrestricting. Take the exercise in groups—say four the first week and four more the second, the balance the third week. Don't begin on all ten. You will be a little stiff at first, but if you follow the exercises with a bath and a good rubbing, there will be little discomfort.

Squatting Exercises—The squatting exercise possesses more merit than almost any other single exercise known. If practiced five minutes daily, morning and night, it will keep you in excellent trim. Especially does this exercise strengthen the muscles of the spine and abdomen, and for reducing superfluous fat on hips and abdomen it is wonderfully effective. It also strengthens the ankles and increases the flexibility of the knee joints.

Stand erect with the feet nearly together and hands resting on your hips. Rise upon the toes, then sink the body to the floor in a squatting posture, bending the knees sharply until the thighs and legs are doubled upon each other and the weight of the entire body is supported by the toes. You must keep your trunk perfectly erect throughout the movement. Return to the original position and repeat twelve times to begin with, gradually increasing to twenty or thirty times.

To improve the upper part of your body this squatting exercise is done in the same way as described above with the addition of the use of the arms in the following manner: Instead of putting the hands on the hips, stand erect with the arms at the side of the body. Then swing your arms laterally and above your head or stretched sideward, at the same time inhaling deeply through the nostrils, and sink the body to the floor in a squatting posture. This is a wonderful exercise to expand the chest and develop the bust, arms and neck, and bring into play all the extensors of the back, giving grace, strength and better carriage to the body.

RULES OF HYGIENE

1. Get fresh air into your system by walking at least a mile or two a day. Keep your bedroom window wide open at night.
2. Sleep eight or nine hours.
3. Don't neglect your daily bath.
4. Drink at least six glasses of water a day.
5. Evacuate the bowels daily. Food, water, and exercises are the best regulators.
6. Chew your food slowly.
7. Choose your food wisely. Eat some coarse and hard foods like crusts, toasts, hard biscuits, hard fruits, fibrous vegetables every day for exercising the jaws and to improve the condition of the teeth. Eat plentifully of vegetables and fruits and bran breads. Eat regularly.
8. Have your teeth examined twice a year by a dentist. Brush them after every meal and before retiring.

GYMNASTIC EXERCISE.

There are many who do not appreciate the importance of such exercise, and its bearing on the development of the physical organization. To judge of its favorable effects it is only necessary to observe some of the results of such exercise—the vigor imparted and the muscular development produced. Every city and village should be furnished with a gymnasium; and all, both male and female, old and young, who have no other form of exercise, should regularly resort to it. Many good people imagine that there is no necessity for gymnastic exercises, because they are a novelty, a thing of to-day, and never heard of in the times of our stout old fathers. Why, they think, should we forsake the customs of our ancestors in favor of this new-fangled theory of romps? Our children will do very well, if they are as strong and vigorous as their fathers and grandfathers; and *they* had none of these modern inventions to help them to grow into men of might and mould. But these honest souls do not reflect that times have changed, and that the people have changed with them. We have no longer the same people, the same customs, or the same country. Then we had no large cities, and sedentary occupations were almost unknown. The men were farmers, herdsmen and hunters. The women toiled at the wheel, the loom, in active domestic service, and not infrequently a-field with the men. Together they lived, for the most part, in the open country or in small villages. A common necessity turned their daily life into gymnastic exercise. They ate sparingly and slept soundly. They had no money to spend for French cooks and little time to waste in devising luxuries for their table. Factories, spinning-jennies and power-looms were unknown; labor-saving machines were not; life meant labor, for both man and woman. They were healthy then, almost as a matter of course. Their diet was simple, their drink pure and unstimulating, and their habits natural and hardy. If "there were giants in those days," as no doubt there were, they were hewed by the sharp chisel of circumstance out of the hardest granite of our nature. If their hardness would shame the degenerate men and women of our day, there was and is ample reason for all the difference, without credit to them or shame to us. They were simply the creatures of their time, as we are the creatures of our time.

Degenerative Influences of Luxury.—Now, both men and women have wealth, luxury and leisure almost without stint. There are large employments in the counting-room and at the desk.

The hardest workers are brain-workers. Moreover the mechanic, and even the farmer, is comparatively without exercise; he tends his machine or rides on his agricultural implement. The daily laborers, in the old, active sense of labor, are already in a minority, and that minority is growing smaller every day with the invention of new machinery and new applications of old machines. Our great cities shut up millions of people to lives of severest toil without any suitable or proper exercise. All the children of the wealthy, and many of those in moderate circumstances, are reared to do nothing useful, or to wait through life for the turning up of some lucky chance. The employments of the women consist of fancy-work, novel-reading and social dissipation. They have no health, no vigor, no stamina. They are utterly unfit to be wives and mothers. Late hours, luxurious living, bad air and want of exercise have made of them the mere effigies of women. Our young men, boys, and even some of our modern girls, who are distinguished or disgraced by the epithet "fast," are addicted to the use of tobacco and other poisonous stimulants. And against the encroachments of these insidious destroyers they can set up no defensive bulwarks of strong health and vigorous constitution. They, therefore, succumb and fall easy victims, where otherwise they might long resist and even overcome the enemy.

The Duty of Public Authorities.—All this may be remedied, in large part at least, by the establishing of public and free gymnasiums in every city and village of our land, or at least their universal association with educational institutions. It is the obvious duty of the State to provide for the physical welfare and development of her citizens, and this is her true interest as well. To encourage her in this she has the good example of the best and strongest of the ancient states. The wisest governments of ancient and modern times have made this provision, for the plain reason that it was the great constituent and reservoir of their own strength. More than anything else it fosters virtue. There is something naturally antagonistic between vice and vigor. Idleness and luxury, on the other hand, are the natural parents of social evil; a whole brood of intemperate appetites and malignant passions are born of this couple.

No doubt the public-school system of our later years shows a wonderful advance in the direction of paternal government. The world has never seen anything like it. It goes before all thought and all theory. It outstrips the most radical speculation. It springs up like the product of magic in the silence and night of thought, and while the world's mind is asleep. And, once in being, its growth is as marvelous as was its birth. Already it fills the towns and villages of the land; its commissioners are almost sovereign legislators; it has become one of the great factors in political combinations; and it grows daily in practical and pecuniary importance. Very soon the rural districts must demand their fair pro-

portion of modern educational privileges, and a few years hence we may see the palatial public school-house on every inhabited section of the country. What will come of all this we do not undertake to say. At all events the school system is a prodigy, at which the people of this country will do well to look long and carefully. We have only referred to it in passing, to demonstrate the propriety of that action of the government in establishing those institutions for physical culture and development, for which we plead. The argument is plain to any mind. If the State can do so much for the mental training of the children of the country, which is not always certain to make them better citizens, it can surely do something for the training of the body, which will certainly ensure for the rising generation, robust physical vigor and a higher intellectual stature.

METHODS OF OBTAINING EXERCISE.

Exercise strengthens and invigorates every function of the body, and is essential to health and long life. No one in health should neglect to walk a moderate distance every day, and if possible, in the country, where the pure and invigorating air can be freely inhaled. Walking is the healthiest as well as the most natural mode of exercise. Other things being equal, this will insure the proper action of every organ of the body. The walk for health should be diverisfied, and if possible include ascents and descents and varying scenery, and be alternated, when circumstances admit of it, with riding on horseback, active gardening or similar pursuits, and with gymnastics and games of various kinds. Calisthenics prevent deformities as well as cure them; a gymnasium should be attached to every school, whether for boys or girls. Athletic sports and manly exercise should form a part of the education of youth, nor should they be neglected in after life, especially by persons of sedentary pursuits. Many aches and pains would rapidly vanish if the circulation were quickened by a judicious and regular use of the muscles. These modes of exercise, practiced moderately and regularly, and varied from day to day, are much more advantageous than the exciting, immoderate and irregular exertions which characterize the ball-room, the hunting-field, and even the cricket-ground or the rowing-match, which are sometimes pursued so violently as to be followed by severe and permanent injury to the constitution. In the case of very feeble and infirm persons, carriage-exercise, if such it may be called, and frictions, by means of bath-sheets and gloves, over the surface of the body and extremities, are the best substitutes for active exertion.

Time for Exercise—The proper periods for exercise are when the system is not depressed by fasting or fatigue, nor oppressed by the process of digestion. The robust may take exercise before breakfast; but delicate persons, who often become faint from exer-

cise at this time, and languid during the early part of the day, had better defer it till from one to three hours after breakfast. Exercise prevents disease by giving vigor and energy to the body and its various organs and members, and thus enables them to ward off or overcome the influence of the causes which tend to impair their integrity. It cures many diseases by equalizing the circulation and the distribution of nervous energy, thus invigorating and strengthening weak organs, and removing local torpor and congestion.

Invalids should always be moderate in their exercise; take only short walks, avoid fatigue and not stand in the open air. The best time for them is in the forenoon, arranged so that they can rest for half an hour before dinner. They should never take exercise immediately before a meal or going to bed.

Exercise for Ladies and Others—As exercise is essential to the preservation of health and development, the proper method of taking it is an important subject of inquiry. Very little, and in many instances no provision whatever has been made in our cities and towns in the way of proper play-grounds for children or adults, and therefore it becomes necessary to seek private methods of getting exercise. As people are deprived of an opportunity for athletic sports and games, a competent teacher of physical exercise has become almost a necessity; even more essential than is a teacher for some of the branches taught in our schools. There are many who are not aware of the different motions which the human body is capable of making, and require making to prevent diseases and deformity; hence the importance of such teachers. Nor is the necessity for such teachers confined to cities and villages, for the female portion of the population of our rural districts have, in a great degree, neglected out-door amusements and exercise until disease and deformity have become the prevalent result.

Outdoor Exercise for Girls—Ordinarily it is not fashionable for girls and ladies to engage in active, out-door sports, such as running, playing ball, rambling over fields, etc.; and if young girls do take part in them they are cruelly called romps and tomboys —as terms of reproach—as though girls have not as good a right to exercise, air, light, amusements, symmetry of form and consequent health and beauty, as boys. In the eyes of some it is not proper for young ladies to engage in any of the out-door employments which give vigor and health to young men. There are but few who would wish to see them engage in the hardest manual labor, side by side with men, but we should like to see every farm provided with a large garden and orchard, and to see ladies spend more of their time cultivating berries, fruits, flowers and vegetables in the open air, and less in useless fancy sewing. They would thus make their homes paradises, where wealth, beauty and happiness would abound, instead of places of discontent, deformity and disease. Let such a change be wrought and it would cause the young men of our country to seek happiness in the quiet and peace

of the domestic circle, surrounded by loving wives and happy children, instead of living bachelors, repelled by the fear of being yoked to extravagant, lazy, sickly wives, and by visions of starving, sickly and dying children.

The Exercise that Produces Health—But the exercise which is taken to cure headache and its kindred evils may sometimes cause that very thing. This happens when the exercise is not taken regularly and a single opportunity is made too much of, and the person unaccustomed to it practices it too long or too vigorously. The fact is that out-door exercise gives the keenest physical enjoyment, and if, for instance, a young girl who has been closely shut up in the house has a chance to take exercise in a pleasant way she is very likely to go too far, and the troubles which follow the over-exertion often cause the too careful mother to conclude that her delicate child is not fit to be out doors at all, when in fact being out regularly in good weather is the thing above all others she most needs.

SLEEP AS A FACTOR IN HEALTH.

Very few people understand and still fewer appreciate the importance of sound, regular, timely and refreshing sleep. Tissue-waste, the consumption of the entire physical structure, from brain to cuticle, goes on during all our waking hours. Sleep is the time and the only time in which those reparative processes which may overcome all this waste can take place. To lose sleep is, therefore, to lose vital stamina, strength, health, and finally life itself. Hunger and thirst are thought to be the most painful modes of death; but the ingenuity of despotism has, we are given to understand, within a few years past, discovered one still more torturing—and that is death by the loss of sleep. The helpless wretch is put under the charge of cruel keepers, who never allow him, from the date of his sentence, to close his eyes in slumber. He rages, threatens, begs for death in any form—longs for impalement or any active and violent form of torture—raves, blasphemes, and so at last dies in agonies unspeakable.

Sleep a Force-Giver—Sleep is not only the tissue-builder, but the force-giver. Our strength and alacrity for daily tasks, whether of the mind or body, depend upon the quality and amount of our daily sleep; and the amount and quality of the sleep required depend not only upon the severity of those tasks, but upon the perfection of the organism with which we pursue them. The higher the capacity, the more and better is the sleep required. Small and inactive brains, like small and inactive bodies, may perform their functions with much less rest than large and active ones. The sleep required for health is in proportion to the physical and mental strength of the individual. An erroneous notion prevails

that sleeplessness is an evidence of mind. It is simply an evidence of the want of mind, since those who have much mind must have a correspondingly large amount of sleep.

Regularity Essential—Now, it is essential to good and refreshing sleep that it be sound. A light and broken slumber, disturbed by vivid dreams in which the emotional and intellectual powers are generally abnormally active, does not answer the restoring purposes of nature; it neither builds nor strengthens the system; hence, refreshing sleep is necessarily sound. Again, it is a condition of sound sleep that it be regular—that is, that it should occupy pretty much the same hours in every day. Alternate sleeping and waking, during the same hours of successive days, has the effect, often if not commonly, of rendering sleep difficult, uneasy and insecure. On the whole, if late hours must often be kept, it is perhaps better that the hour of retiring should be uniformly late than occasionally and frequently late; though even this preferable method defeats the evident design of nature, as shown by the declining health of those who from some peculiar necessity of their occupation, habitually turn night into day and day into night. A few years of useless and hurtful fighting against a great law and they are worn out, and must yield and go back to natural habits or die. Thus we see that these four named conditions of good sleep are vitally connected; that sleep, to be refreshing, must be sound; that to be sound, it must be regular; and that to be regular it must be timely, or taken at those hours indicated by the order of nature and a once universal custom.

Injurious Effects of Fashionable Hours—In this respect of seasonable rest Nature has given way to Fashion. Fashionable society means late hours, and all who aspire to enter that charmed circle must conform to this requirement. The modern fine lady must not only have time for her elaborate toilet before making her appearance at any place of evening entertainment, but she must also postpone her arrival to such an hour that, the place being filled, she can attract the greatest number of admiring regards to the splendid elegance of her costume. So theatres, concerts, lectures and sermons must alike wait for her coming, since she it is who gives character and tone to all these assemblies. People who labor and who ought therefore to be in bed by nine or ten o'clock, P. M., must conform to this rule or forego all fashionable amusements, and therefore it is that they are urged by all the well disposed to forego these amusements. It is not that the entertainments are wrong in themselves, but they sin against the health and happiness of all workers, whether with brain or muscle, by trenching more and more deeply as time goes on upon the hours which Nature has consecrated to repose. If workingmen and women must have amusement—and we concede that they must and should—let them devise it for themselves, within seasonable and proper hours. A persistently and repeatedly broken sleep very soon pro-

duces mental derangement; and the directors of asylums for the insane have found, by experience, that regular and early hours are essential to the improvement of their patients and they require all their balls and parties to close punctually at ten o'clock, P. M. In this respect the insanity of fashion might well be placed under a like wise and judicious direction.

One hour of sleep in the early night is worth two at its end or in the day, for all the purpose of health and strength. If our ladies understood, what is undoubtedly the fact, that all their "beauty sleep" must be gained before 12 P. M., there would probably be fewer devotees of fashion among them. The faded, wan and prematurely old woman of society owe the earlier wreck of their once splendid charms more largely to irregular and untimely hours than perhaps to all other causes combined.

ALCOHOLIC LIQUORS

Alcoholic Liquor as a Cause of Disease—Those who die from the direct effect of intoxicating liquors—that is, of delirium tremens or drunkenness—comprise but a small portion of those who go down in their graves from this cause, for it is a fact well known to the medical profession that those who use stimulating liquors are far more liable to be attacked with any prevailing disease, and the fatality is also much greater in such cases, than with those of temperate habits. As a general rule, throughout the world, the first victims of cholera are drawn from those who use stimulants. The same is true in cases of sunstroke, chronic inflammation of the stomach, headache, diseases of the liver, jaundice, dropsy, impotency, gout, colic, peevish irritability, febrile diseases, epilepsy, apoplexy, loss of memory and mania. These are some of the diseases that afflict the rum drinker, and the habit is one of the most prolific causes known of lunacy. In England, Lord Shaftesbury, chairman of the commission on lunacy, stated in a parliamentary report that six out of every ten of the lunatics in their asylums are made so by the use of alcohol. Adulterated liquors in this country count their victims by the thousands. Wines said to be least injurious of the stimulants contain the adulterants in a very great degree. Many of them contain but little of the juice of the grape and some of them none at all. They are manufactured from dye-stuff, drugs and alcohol, with that most dangerous article, lead, added, to render them clear and prevent them becoming sour. Hence their use in any quantity can only be injurious to health and destructive to life.

Alcoholic Liquors Not Essential in Medicine—Dr. John Ellis of New York, says: "I can say that, after devoting over eighteen years to the study and practice of medicine, I have never seen eighteen cases in which the use of alcohol drinks have

done my patients good. I have never seen a patient recover under their use, that I had not good reason to think would have recovered without them. I have frequently been called to see feeble persons, especially females, who had been taking wine, beer, brandy and the like for years, to strengthen them, and still they remained weak; and I have found that such patients improved when they were required to live on a proper diet and discontinue their stimulants. So far from being strengthened they had actually been debilitated by their use."

The celebrated Dr. Edmunds, of London, makes the following statement in his writings: "The cases in which I use alcohol in my practice I confess become less and less frequent every day. And I should feel that I lost very little were I deprived of it altogether." It is probable that there are conditions or states, in some few diseases, where stimulants of this character may do some good; but the great difficulty is to know exactly when this condition or state occurs, and there is usually more or less disagreement on this point among physicians. And when they do not effect good, they usually aggravate the disease and result in harm, for all undue excitement is necessarily followed by corresponding depression, and thus thousands are sent to a speedy grave in consequence of it. How can it be otherwise? Can a man who is prostrated to the very lowest ebb of life stand a course of stimulation whose reaction, all experience shows, will prostrate a well man? Take for example a most critical case, in which the patient is for days in a state where he can barely live without stimulants, and now let him be given these, and an unnatural state of excitement will follow, or a degree of activity above that which the exhausted organism is capable of sustaining; as a necessary consequence, corresponding depression must follow, and if the patient was barely at the living point before the prostration, which is sure to follow, he must now sink below that point. It may be asked, can not this state of excitement be kept up by the use of stimulants for days, until the patient recovers? If space would admit, we might logically show that this can rarely, if ever be done.

Alcoholic Liquors afford Neither Muscular Strength nor Nutriment—It is a law of the animal economy that any substance or food must, when taken into the body, be changed or decomposed into its elements before it can yield to the body those forces which produce muscular strength. Now the fact is, that when alcohol is taken into the body it leaves it again as alcohol undecomposed, there being no change wrought upon it. It therefore cannot have given up those elements that are needed in order to supply nutriment and muscular force. As an evidence that alcohol thus leaves the system undecomposed and without any change, you have but to give an individual a few tablespoonfuls and you can shortly afterwards smell its vapor as it is emitted from the pores of the skin. You can, as easily and definitely, reproduce and

demonstrate the presence of alcohol by the exhalations from the skin and lungs, as you can the presence of arsenic in the body of a person who has been poisoned by it. Food is that which is decomposed in the body and supplies it with the forces which the body afterwards gives out. If your horse is tired by its journey, you can give him a feed of corn and time to digest it, and he goes into harness again as vigorous as ever and ready for the next stage. What is it that has taken him along through the second stage? It is the corn which has served as food to the animal, and has become decomposed in its tissues, just as the coal would be put into a locomotive furnace when the fire was going down. Now, suppose, instead of giving a horse a measure of corn, you give him a liberal allowance of whip, which is a stimulant? The horse goes on and works until more completely exhausted; and just so with a man. It should be recollected that food puts strength into a man by giving substance to supply waste; but alcoholic stimulants abstract strength from a man; they excite but to exhaust. Then recollect that when you employ stimulant, you are using that which will exhaust the last particle of strength with which your body otherwise would not part. That is what we always do when we work on stimulants; it is obviously unnatural, and therefore injurious. The foregoing statement being true—that alcoholic liquors furnish neither nutriment nor muscular strength—it must logically follow that their use is unnatural and injurious.

Alcohol an Enemy to Prosperity—To illustrate the beneficial effects that flow from curtailment of the use of alcoholic liquors, we give the following facts which were submitted by the clerk of the circuit court of Edwards County, in the State of Illinois, some time since:

"There has not been a licensed saloon in this county for over twenty-five years. During that time our jail has not averaged an occupant. This county never sent but one person to the penitentiary, and that man was sent up for killing his wife, while drunk on whisky obtained from a licensed saloon in an adjoining county.

"We have but very few paupers in our poor house, sometimes only three or four. Our taxes are thirty-two per cent. lower than they are in adjoining counties, where saloons are licensed. Our people are prosperous, peaceable and sober, there being very little drinking, except near Grayville, a licensed town of White County, near our border. The different terms of our circuit court occupy three or four days each year, and then the dockets are cleared."

Treatment of the Alcohol Habit—Dr. W. F. Waugh, of Philadelphia, has devoted considerable time to the study of the alcohol habit. In seeking the causes for the return of the drunkard to his habits of intoxication, he has noted the following:

"1. PREVIOUSLY EXISTING DISEASE which had led to drink. It is a misfortune to a neuralgic when the relief afforded by alcohol is

manifested to him. Dyspepsia has caused many a man to become a drunkard.

"2. Overwork; especially when accompanied by ill-health. When a man begins to resort to alcohol to enable him to perform tasks which are above his unaided strength, he is calling the Saxons into Britain; he is invoking the aid of an ally who will certainly one day turn upon him with deadly effect. The most hopeless cases received in our asylums are those which come under this head.

"3 Catarrh of the Stomach is responsible for many cases. This is due to the direct effect of alcohol upon the gastric mucous membrane. It is the source of the "next-morning headache," the thirst, and loathing of food in one who is just getting over a debauch. The temporary relief afforded by alcohol in these cases induces many to continue their potations who would otherwise have stopped.

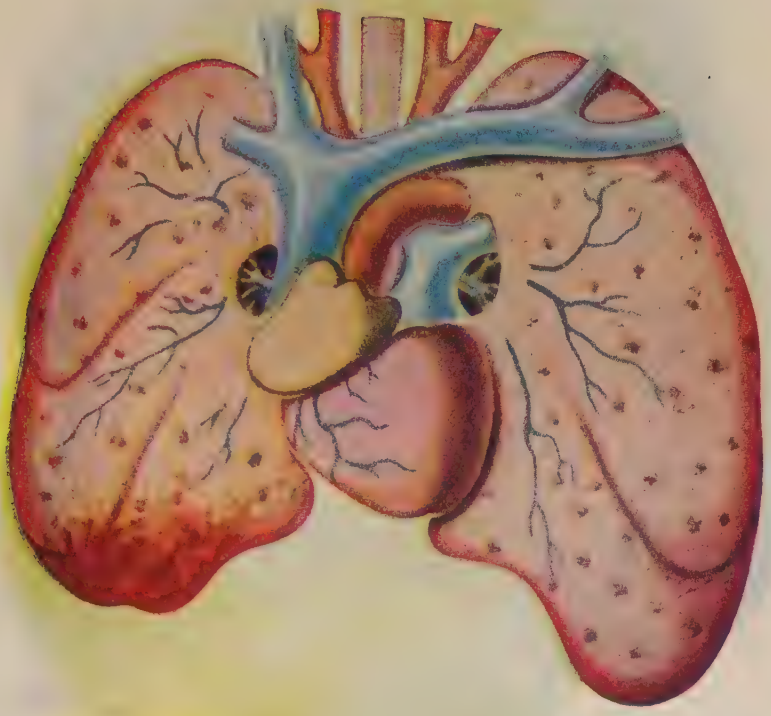
"4. Catarrh of the Mouth:—Although the gastric catarrh has been generally mentioned by writers, it is singular that none of them have called our attention to catarrh of the mouth. Observation shows that after a night's drinking there is great dryness of the mouth, the secretions of the mouth and salivary glands being suspended. I am convinced that in many cases the desire for drink has no deeper origin than the mouth.

"5. Depression:—The depression due to the withdrawal of the accustomed stimulus is, however, in nearly all cases, a powerful incentive to a relapse into habits of tippling.

"Treatment.—The treatment of these varieties must necessarily greatly vary. In the first and second classes the recognition of the cause affords the indication for treatment.

"In the third class, namely, that dependent on gastric catarrh, the following treatment has proved most beneficial in my hands: One hour before meals give a teacup of hot water in which has been dissolved ten grains of bicarbonate soda. This dissolves and carries off the tough adhesive mucus which coats the mucous membrane of the stomach, and which besides hindering digestion, acts also as a ferment. Half an hour later, drop upon the cleansed surface of the gastric mucous membrane, a small dose of subnitrate or subcarbonate of bismuth, oxide of zinc or oxide of silver. In a few days the catarrhal symptoms will subside. If the digestive fluids be not secreted in a healthy manner, minute doses of rhubarb and ipecac will restore the normal functions much more certainly than pepsin of any sort."

"In the fourth and fifth classes I desire to recommend the administration of Erythroxylon Coca. It is useless in the treatment of delirium tremens, but to relieve the depression resulting from the deprival of stimulants it has remarkable powers. Its effects in relieving one from the sense of fatigue are too well known to require more than a passing notice. I have frequently returned to



Lungs of Andrew Harper, who Died from the Effects of Cigarette Smoking.

The above illustration shows the shrunken condition of one of this young man's lungs, and the nicotine sediment in them. The lung is inflamed, and the nicotine shown in the dark spots.

Everyone should read the article on this subject in this book, after which it is not likely that he will ever do any more cigarette smoking.

my home after a hard day's work only to find that a still harder night awaited me in the shape of a tedious labor case. A dose of coca, however, removed the fatigue and left me as fresh as when starting out in the morning after a sound night's sleep."

Dr. Waugh proceeds to give instances of the alcohol habit cured by the use of the Erythroxylon Coca. To overcome the obstacle that men did not like to be seen taking medicine, he has put up the coca in masticatory plugs like tobacco, and called coca-bola. This has also had the additional effect of curing the tobacco chewing habit.

TOBACCO.

Tobacco a Poison—No one will question the fact that tobacco is a poison, who has observed the deadly sickness it usually produces when chewed or smoked by those not habituated to its use. There are but few substances in nature that are capable of destroying life so suddenly as tobacco. From one to two drops of the oil have frequently been administered to dogs and cats, and invariably in a few minutes life became extinct. Dr. Franklin applied the oily material which floats on the surface of water when a current of tobacco smoke is passed into it, to the tongue of a cat, and found it to destroy life in a few minutes.

Tobacco a Cause of Disease—Tobacco is a frequent cause of disease of the digestive organs, lungs, nervous system, head, eyes and brain. If causes heartburn, nausea and frequent belchings, pains and diseases of the liver; pains in the bowels, with disposition to diarrhea or costiveness. It causes, too, difficulty of breathing, oppression of the chest, pains in the chest, with inability to take in a long breath, and violent palpitation of the heart, as well as pain and stiffness of the back. Tobacco also produces a tendency to paralysis, causes drowsiness, unnatural sleep, nightmare, troublesome, anxious and frightful dreams, and a great number and variety of affections which we have not space to mention. In fact we have noticed but small proportion of the diseases which are asserted by some of our best medical writers to spring from the use of tobacco. Of course it affects different persons in different ways, searching out and seizing upon those parts of the body which are least able to resist its destructive force.

Yet there is seldom any one who habitually uses tobacco but will find himself troubled, more or less, by the symptoms of the above named diseases as soon as he stops its use; but while using it freely it will palliate or allay, as do all poisons, the symptoms its use has caused. Not infrequently on rising in the morning, after having abstained from its use during the night, he will get a slight glimpse of his waning vital energies; but his view will soon again be obscured when he partakes of the alluring leaf.

Medical Testimony—The senior physician to the Metropolitan Free Hospital, in London, writes as follows: "I can testify, from long observation, that the chronic use of tobacco in any form is a very prevalent cause of debility and manifold diseases. Take, first of all, the sense of sight: one of the most celebrated London ophthalmic surgeons tells me that he is constantly consulted by young gentlemen for weakness of vision, caused by smoking; and I myself have in many cases seen the prolonged use of tobacco, especially when it is chewed, cause the total loss of sight. Then take the circulatory system, and we find smokers subject to palpitation of the heart and far less able to bear up against the extremes of heat and cold than they were before making use of tobacco. The use of tobacco is apt to cause a relaxation of the muscles of the back of the mouth and dusky discoloration of the fauces, with hoarseness from congestion of the vocal cords. The overwhelming majority of cases of cancer of the lip are found in men who smoke, and cancer of the tongue has often been said to be caused by the irritation of the fumes of the pipe or cigar. Great smokers lose, to some extent, their vivacity; *i. e.*, they are less vital than they used to be, and less easily moved by a slight 'stimulus' which might be pleasurable to non-smokers. They are notoriously dyspeptic. I need hardly refer, indeed, to such a well known fact. They are subject to constipation and 'malaise;' and when deprived of their stimulus are more miserable, perhaps, than even drinkers. I must take the liberty to protest against a custom which has been inveighed against by Brodie, Copland, Critchett, Guerrin, Mantegazza, Cacopardo, and numerous heads of my profession in all countries."

Mental Effects—Mr. Solly, an eminent writer on the brain, said once in a clinical lecture on that frightful and formidable malady, softening of the brain, "I would caution you as students against the use of tobacco, and I would advise you to disabuse your patients' minds of the idea that it is harmless. I have had a long experience in brain-diseases, and I am satisfied now that smoking is a most noxious habit. I know of no other cause or agent which tends so much to bring on functional disease, and through this in the end, to lead to organic diseases of the brain, as the excessive use of tobacco."

The influence of tobacco on the human system is quite as much to be dreaded as the use of alcoholic drinks. Drunkards invariably are tobacco-users. Not one young man in a hundred would ever think of using intoxicating liquors did he not first learn to use tobacco in some form. Daughters of drunken fathers do not inherit a hankering after spirituous liquors; neither would the sons, did they but abstain from the use of tobacco. And yet ministers of the gospel and many of the deacons of our churches, good men, so-called, who preach temperance and cleanliness to the youths of the land unceasingly, keep their mouths filled with the vile stuff or

make smoke-houses of their heads, as if the end and aim of life with them was to pickle their tongues in smoke; and their whole bodies are so saturated and polluted with the vile stuff that their neighbors' nostrils announce their coming afar off. Is it to be wondered at that so many of our young men, following in the steps of their illustrious fathers, learn to use tobacco and cultivate a taste for stimulants which at last becomes a direful disease and then finally die lunatics or drunkards?

The smoking of a single cigar, and especially by those not long habituated to its use, will increase the pulse from ten to fifteen beats. The results of both chewing and smoking often are depression of spirits, irritability, peevishness, loss of memory, dullness of perception and despondency, as a natural result of over-excitement. The teachers in our institution of learning not infrequently observe that young men who use tobacco, as a general rule, are much more dull and stupid than those who do not; and they, as well as eminent physicians, have expressed the opinion that tobacco to-day is doing almost as great a physical injury to the present generation as alcohol.

Sudden Death—Dr. Twitchell states that nearly all the cases of sudden death occurring during sleep, which came under his observation, were those of persons who had indulged largely in the use of tobacco. And subsequently the correctness of his statements was confirmed by investigations made by the Boston Society of Medical Observation.

Physical Effects—The use of tobacco produces marked alterations in the most expressive portions of the face. In consequence of the constant use of the muscles surrounding the mouth there is occasioned an irregular development of these parts, which presents a coarser appearance when compared with the rest of the features. The eye loses its natural fire and becomes dull and vacant, and the skin assumes a sallow appearance

Uncleanly—To say that this habit, with many, is uncleanly and even filthy, is only repeating what is expressed every day. The linen, the mouth, the breath, and many times the room of its victim, indicate the effect it produces.

Moral Effects—The use of tobacco has a tendency to impair the taste, so that simple fluid and simple diet are liable to become insipid and unpalatable, and the natural resort is then to the "flowing bowl." It also excites the various animal propensities beyond their proper balance, and tends to debase the moral character and make man more animal and less intellectual.

Expensive—Tobacco, in its different forms, costs the people of the United States $2,110,000,000 annually, all of which is far worse than if thrown away. It is not a natural food for man; it will not sustain life, but is a poison, and all its tendencies, except in rare cases, are to destroy life. Is it any wonder that we cry hard times, when there are hundreds of millions of dollars annually

thrown away for tobacco and intoxicating beverages? Those who are so adroitly seeking for the cause of this condition of affairs, would they but take the trouble to examine the statistics and investigate this matter, would find herein one cause for this great depression that has been more potent than all others combined.

Cigarettes and Tobacco are Ruining Millions of Young Men and Boys, thereby developing the passions, softening and weakening the bones, and greatly injuring the brain and nervous system. A boy who early and freely uses tobacco never is known to make a man of much energy of character, and generally lacks mental and physical energy. The larger proportion of the aged, and those of mature years, very much lament that they were led to indulge in this habit. This should be a solemn warning to the young not to fall into the same error. Many boys have erroneously conceived the idea that to "puff" a cigar or cigarette, or chew a quid of tobacco, is manly—is genteel. Yet, if they did but know in what contempt such a course is held by the thoughtful and considerate, there would never be a repetition of it. I fancy I hear some young reader remark, "My father used tobacco many years, and died an old man; if tobacco killed him, it was very slow poison." I am apprised of the fact that some men of strong constitutions, active life and otherwise good habits, may use tobacco and alcohol, and even get drunk often, and yet live to a good old age; but they are exceptions to the general rule; a much greater number will die young.

Besides, it will be found that most of those who lived to an old age did not commence the use of these poisons very young; else they used them moderately and were never what we call hard drinkers or smokers. And we would further say to this young man, that if he were born after his father commenced using tobacco, he does not, for that very reason, if not for others, possess his father's strength of constitution, if the latter used tobacco as freely as most young men use it to-day; neither can he follow in his father's footsteps without the chances of filling a premature grave. How many of us are to-day suffering from paternal errors in consequence of the iniquities of fathers being visited on their children.

Tobacco Destroys Health, Imperils Social Standing, Extinguishes the Affections.—Besides it produces consumption, feeds dyspepsia, cherishes nervous diseases and palpitation of the heart, excites liver complaint, creates cancers, encourages headache, engenders weak eyes, invites disease and promotes softening of the brain. Its foul perfumes invade every railroad coach, street car and omnibus-line; contaminate hotels, boarding-houses and private apartments; its stench invades the family and social circle, and nauseates the mother, sickens the wife and insults the daughter; it extinguishes the affections of the doting lover, offends the young bride and disgusts the young maiden. It weakens the digestion, perverts the taste and leads to intemperance.

CIGARETTE CURE—(Anti-Cigarette League)

Mouth Wash, six ounces—Silver nitrate solution one eighth to one-fourth of one per cent.

Use a mouth wash after each meal, not to exceed three days, then after breakfast only for not more than four days. Do not swallow any of the solution.

Gentian Root (not the powder)—Chew a little whenever the desire for smoking appears. Gentian root is slightly tonic, and an aid to digestion. It may be used for several weeks without injury.

Diet—The diet for the first two weeks consists exclusively of fruits, well-baked cereal foods and milk. The best cereal foods are shredded wheat biscuits, corn flakes, puffed rice, puffed wheat, used with cream and milk. Whole wheat or rye bread may be used. The moderate use of nuts, well masticated, is of value. At the close of each meal use fresh sub-acid fruits, as peaches, pears, apples, pineapples. Sweet milk, buttermilk, malted milk, or cereal coffee may be used in place of coffee, tea, or cocoa.

While irritating and stimulating foods and drinks intensify the craving for narcotics, a grain-milk-fruit diet lessens it. In some special cases an entire milk diet for a few days may be beneficial; especially if there exists an irritable stomach bordering on ulceration, with an excess of hydrochloric acid. If the digestion is slow, and there is a deficiency or absence of free hydrochloric acid, a diet composed entirely of fresh fruits for a day or two preceding the grain-milk-fruit diet may be of benefit.

Eliminative baths, preferably the Turkish bath, will assist in rapidly getting rid of the stored-up nicotine. As a rule, it takes from three to six weeks to eliminate entirely the desire for tobacco. The time required depends upon how closely the directions are followed.

During the first few days, in the attempt to give up tobacco, the struggle is naturally the most trying. The Silver Nitrate solution and the Gentian root are valuable aids, both of which as stated, create a distaste for tobacco and making smoking undesirable. Being a metallic poison, the use of the Silver Nitrate solution should be continued only the first few days. By the end of the first week it will be recognized that the desire for tobacco has materially lessened. The consciousness that the desire is becoming less naturally begets confidence in the ability to conquer. After confidence is restored the battle is practically an easy one. Each week it will be found there will be a notable decrease of the craving, with a corresponding increase of confidence, determination and will power.

Tobacco Chewing—Tobacco chewing at first is a habit, later it becomes a disease. A habit is hard to break, but disease is harder still. Five years or more of tobacco using establishes tobacco

disease, a hard master. There is no positive antidote. One plan is to gradually chew less and less, using a pinch of tea or coffee in the mouth as a substitute. Some use cinchona bark in same way; others, Canada snake root, or dried celery. Another remedy is calamus root. This list includes the principal things used as a substitute for tobacco. As tobacco is decreased the substitute can be decreased also, gradually tapering off both to a finish.

Diet—It is important in such treatment that fresh and dried fruit be used as much as possible. Tobacco users usually feel disinclined to eat fruit, or much of it. Orange peel is often a help as a tobacco cure. The drink should be plain water, or orange juice, diluted with water, and sweetened.

Bread, fruit, vegetables and water is the best diet treatment for chronic disease such as mentioned; if the diet is used long enough relief is almost certain. Many persons will get discouraged and fall back in the old table habits, thinking it's no use. Damage in old cases is repaired slowly, and only those who will "fight all summer" will win.

VIGOROUS MANHOOD

To achieve vigorous manhood at least five qualities are necessary. One of these is *muscular strength,* the importance of which is realized by every man. But one may have strong muscles, and still be unable to use them to the best advantage in a race or in any contest requiring continued exertion, unless he also has *endurance.* A third necessary quality is *energy;* without it a young man will make but little headway in athletics, in study, or in business life. Two other important qualities are *courage* and *will-power;* these enable a man to become a valuable half-back in football, or to assume important positions of leadership in school and in business.

There are numerous examples of vigorous men in recent history and in present-day American life. Walter Johnson, the great pitcher, combines self-control and will-power with muscular strength, energy and endurance. He keeps in good condition by taking scrupulous care of his body. Modern baseball requires men who train and develop strong bodies and alert minds.

Captain Robert F. Scott, who reached the South Pole in 1912, gave the world a wonderful record of endurance, energy, will-power, and courage.

When Livingston faced the dangers of fever, sunstroke, wild animals, and savages, and traveled 1,000 miles into the heart of Africa, all the qualities of vigorous manhood were necessary.

Lincoln, as a youth, could sink an ax deeper into a tree than any other man in the community. He could out-lift, out-work, and out-wrestle other men. He showed vigor of manhood.

How Vigorous Manhood Is Achieved—Those who would achieve the maximum vigor must observe at least five essentials. The first of these is sufficient exercise of the right kind. Reading the sporting page, yelling in the grandstand, and watching the baseball bulletin boards may be enjoyable, but will never make a man vigorous. He himself must take daily exercise. Hiking, baseball, rowing and canoeing, skating in the open air, swimming, if taken moderately, general gymnasium work, boxing and wrestling, where the air is fresh, are among the beneficial forms of exercise.

A young man's daily exercise should be vigorous enough to cause him to perspire freely. This helps his body to throw off certain waste products which would act as poisons if they were allowed to accumulate. After exercise a bath should be taken. A shower is better than a tub bath. A wash bowl or any contrivance is better than nothing. Warm water should be used first, then cold. The bath should be followed by a vigorous rub-down with a coarse towel, the whole process taking no longer than four or five minutes. The bath and rub-down should produce a healthy glow of the body and a general feeling of well-being.

Second, young men should sleep in the fresh air, work and exercise in the fresh air as much as possible, and be sure to have the indoor air kept fresh during the day. Fresh air is the one cure-all. It is usually more valuable than any quantity of medicine.

In the third place, most young men need at least eight hours' sleep every night, and most boys between the ages of thirteen and sixteen need from eight and one-half to nine and one-half hours. With less, one can get along, but he can not keep himself in the best possible physical condition. One should not lie in bed after waking up, but should jump out and dress immediately.

Proper food is another requirement. One should eat chiefly fresh vegetables, cereals (wheat, oatmeal, and rice), bread (preferably whole wheat bread) and butter, eggs and fruit, with fresh meat or fish not oftener than once a day. The system needs not only the kind of food that is rich in nutriment, but vegetables and other coarser food to give bulk and stimulate the action of the intestines. All food should be chewed to a pulp.

Not only is it necessary to eat wisely—it is also important to pass off the waste materials by regular movements of the bowels. When this is not done, one becomes constipated and is likely to have headaches and general ill health. Regular movements of the bowels are aided by the abundance of exercise and by eating plenty of fruit and drinking plenty of pure water.

The Relation of the Reproductive Organs to Vigor—Finally, if one is to win vigorous manhood and retain it, it is important that he should understand the relationship of the reproductive organs to vigor. This needs to be carefully explained, because, while the facts are important, they are not generally understood.

It would not be possible for a small, immature boy to achieve the full vigor of manhood were it not for the reproductive or sex organs. This fact may be made clear by referring to the activity of the various glands in the body. Most men are familiar with the salivary glands, and the glands in the stomach which secrete the gastric juice. There are also glands which make secretions that are absorbed by the blood. One of these glands, called the thyroid is in the neck. It is absolutely necessary for the blood to absorb the secretion of this gland. If a boy were seriously injured in the neck so as to necessitate the removal of the thyroid gland, he would probably become feeble-minded.

Horses also have thyroid glands and other glands which make secretions that are absorbed into the blood. Two of these glands hang from the outside of the body in a sack. They are the testicles (or balls). When a male colt is about one year old, these glands are generally removed. We say that the colt is "cut" or "altered" or "castrated." When this is done the colt becomes a gelding. When the colt is not altered it becomes a stallion. The stallion has larger muscles, a finer, stronger body, and more vigor. He becomes a finer horse because the secretion manufactured by the testicles becomes part of the blood, and aids in the development of strength and vigor.

In some Oriental countries, when slaves that can be easily managed are wanted for the king's palace, little boys are sometimes cut or castrated and are allowed to grow up without testicles. Their beards fail to grow, their voices do not change, and they are likely to become cowardly, timid and indolent. They do not become men.

[redacted]

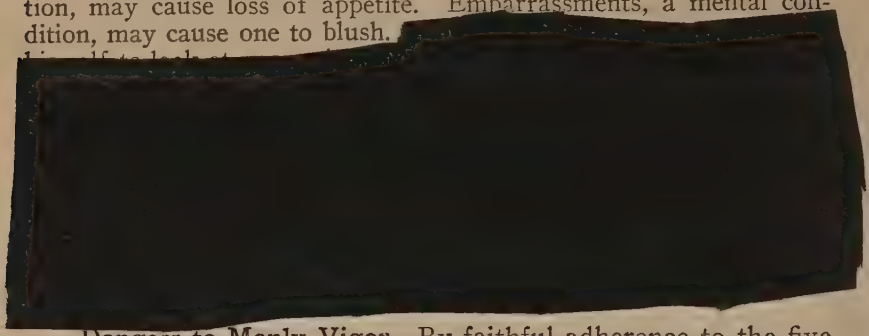
and around the sex organs. These organs themselves (the scrotum or bag, the two testicles and the penis) increases in size at this time. All these changes are natural and are to be expected. If they occur as late as fifteen, sixteen or seventeen years of age, however, the boy should not worry. In some respects he has an advantage over the boy in whom they take place much earlier.

Seminal Emissions—Inside the body, near the bladder, are two other glands, called the seminal vesicles. When a youth reaches the age of fifteen, sixteen or seventeen (though it may be earlier or later), these glands becomes filled with a fluid which is occasionally discharged in the night. This discharge is called a seminal or nocturnal emission. It is a perfectly normal experience. It may come two, three or four times a month, or only once in two or three months. It is well not to lie on the back when sleeping, and well not to drink much water late in the evening. Lying on the back brings the bladder directly over the seminal vesicles. If the bladder is full, it may cause an irritation of the vesicles, with too frequent emissions as a result.

[redacted]

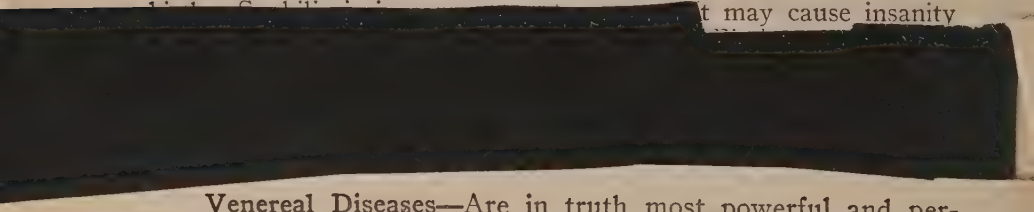
Knowing these facts, the young man will not permit himself to become the victim of quack doctors. In many cities unscrupulous men advertise to cure "lost manhood," "nervous debility," "pimples," and other things which have nothing to do with sexual health. They try to frighten the ignorant into paying large sums of money for the "cure" of diseases which do not exist. Many boys are bothered by pimples on the body when they reach the age of about fifteen, sixteen or seventeen. These are *not* an indication of any sexual disorder whatsoever, and they need cause no worry.

The Relation of Mind to Vigor—The condition of the mind also has considerable to do with vigor. Various mental conditions often cause bodily changes. For instance, sorrow, a mental condition, may cause loss of appetite. Embarrassments, a mental condition, may cause one to blush.



Dangers to Manly Vigor—By faithful adherence to the five requirements previously mentioned, one develops a high degree of bodily resistance. By keeping one's self in prime condition all the time, tuberculosis, typhoid fever, grip, colds, diphtheria and many other diseases generally may be avoided.

It seems important, however, to refer in some detail to two diseases which are caused by the misuse of the reproductive organs, because many men do not understand how serious they are. These diseases are gonorrhea (or clap) and syphilis. They are caused by sexual intercourse with prostitutes (women who sell their bodies to gratify the lust of men). In general, it may be said that some prostitutes are diseased all the time, and all of them some of the time. Gonorrhea is often apparently cured in a few weeks' time, but the germs may remain in the body. Years afterward the disease may return and bring serious complications to the man himself, or he may give it to his wife. She may become an invalid for life, or give birth to a child who becomes blind a few hours after



Venereal Diseases—Are in truth most powerful and persistent *enemies of efficiency*. A conservative estimate shows that these disease cost at least $300,000,000.00 a year in reduced efficiency. Three hundred million dollars a year.

And until the public and the vast army of employers realize how infected persons endanger the public interest, safety and health and do their utmost to prevent these diseases, this huge total of wasted resources will appear between the lines of every yearly budget.

PROTECT YOUR HOME

We have fire insurance and fire extinguishers to safeguard us against loss from fire. We have cyclone cellars and tornado insurance to protect us from loss by storm. We have police to safeguard us from burglars. And we use them all when it is necessary But we are not availing ourselves of the agencies at hand for the prevention and cure of social diseases. They are more destructive than all the devilish equipment of the recent WORLD WAR and continue on their stealthy way, destroying the innocent as ruthlessly as the guilty.

Lurking behind the protecting screen of ignorance, fear, timidity and false modesty, these assassins play no favorites. The mother in her home, the innocent little child, the untaught youth are all easy prey.

Now, listen!—There are going to be some older fellows who will come to you some day. Watch for this. They are going to come to you and they are going to tempt you and sing the song that every man has had sung in his ears—that sexual intercourse with women and girls is a necessary thing. Though some ignorant men hold that sexual intercourse is necessary to physical health, this is contrary to the best medical authority. A statement recently signed by 360 of the foremost medical men in the United States, including such noted men as Dr. Billings of Chicago, the Dr. Mayo brothers, of Rochester, Minn., Dr. Jacoby, Dr. J. B. Murphy of Chicago, and many others agreed against this old theory, declares that there is no evidence that abstinence from sex activity is "inconsistent with the highest physical, mental and moral efficiency." Men who act upon this false idea of sex often find out to their sorrow that sexual intercourse for them has resulted in disease and not health. When a prize fighter is training for a fight and needs all the vigor and endurance possible, his trainer insists upon abstinence from sexual activity.

While it is important for a youth to understand the facts herein stated, it is not necessary for him to remember all the details referred to. In fact, he should dismiss all these matters from his mind. The important thing for him to do is to lead an active, vigorous life, and nature, as a rule, will take excellent care of him.

Reproduction—The first function of the sex or reproductive organs is to develop the boy into a vigorous man. The other function is to enable him to reproduce himself when he becomes mature and the head of a family. By the process of reproduction, all forms of life—flowers, trees, birds, fish, wild and domestic animals, and human beings—are perpetuated on the earth. If the function of reproduction did not exist in life, the earth would soon become barren. Since reproduction is essential, it is important to understand how life is passed from one generation to another.

Reproduction in Plant Life—In many forms of plant life the flower contains the reproductive organs. In its center is a single organ called the pistil. Around it are several short stems, called stamens, on the top of which is the yellowish dust, or pollen. At the base of the pistil is a receptacle, called the ovary, in which are minute germ cells, called ova. Cells of a different kind develop from the pollen. The ova may be spoken of as the female cells, and the cells which develop from the pollen as the male cells. When the flower is in full bloom it is ready to do its part in reproducing the plant. As bees fly about from one plant to another they carry pollen from flower to flower. Part of this pollen is brushed off on the tops of the pistils. Germ cells from the pollen go down through the pistil into the ovary, where they fertilize the ova; that is, they make the ova capable of growing. After the ova are fertilized, they slowly develop into seeds. The upper part of the flower dies and drops away. The ovary becomes a seed pod, in which several fully matured seeds can be found. These may be kept through the winter.

Reproduction in Animal Life—The salmon of the Pacific ocean furnish interesting examples of reproduction in animal life. In the spring they swim into the rivers and find shallow, sheltered places for nests. There the female lays a large quantity of eggs. She then swims away and the male comes to the nest and deposits from his body a quantity of fertilizing fluid, containing cells called sperms. Thus they work back and forth until the female has laid several thousands of eggs. Many are fertilized by the sperms and develop into young fish. The male and the female, however, are exhausted by the process of reproduction. They drift down the stream in a helpless condition and very few ever reach the ocean alive. They give up their lives in producing their young.

Reproduction in Human Life—Human reproduction is similar in many ways to reproduction in the flower. Inside the human mother's body are minute germ cells called ova. In the male sex organs other minute germ cells, called sperms, develop. When a sperm cell comes in contact with an ovum inside of the mother's body, it fertilizes it, thus making it capable of growing. It slowly develops, being constantly protected by the mother's body and continually nourished by the blood from her heart. It slowly takes the form of a human being, until, after nine months of growth, it has sufficient strength to live without the direct protection of the mother's body, and then is born a new human life into the world. Both before and after birth the mother sacrifices much for the new life.

The Superiority of Man—Reproduction in plant life is largely dependent upon the action of bees, the wind and other natural forces. In animal life, reproduction is almost automatic. The salmon simply obey the reproduction instinct when the springtime comes. Man has the reproductive instinct, but he has acquired the power to control it to a far greater extent than have the animals.

The sex instinct may be a source of destruction or a great blessing. If it be abused, disease and suffering may result for the man and his wife and children. If it be understood and controlled, it becomes a source of added strength and a richer and fuller life. The nature of the sex instinct may be understood by comparing it with other forces in life. Fire is a great blessing to mankind. By means of it, machinery is made to perform gigantic tasks. It warms our houses and cooks our food. The warmth and glow of a campfire is a source of great pleasure to campers. When fire is controlled it is a valuable aid to man, but when it gets beyond control it may cause ruin.

The water above a dam becomes a source of power when directed into the turbines which run dynamos. If it be only held back by the dam, it may accumulate and cause a break, resulting in a flood. To be useful, it must not only be held back; it must also be directed.

So sex energy must be controlled and directed. The youth entering into manhood needs the full power of his will to keep his sex desires from leading him into practices that weaken and destroy himself and others. But the truer way of wisdom is in the preoccupation of the mind with healthful sex interests and the turning of the growing powers of youth into athletics, work, study, art, music, religion—any constructive social activity. Each of these looks out in one direction toward sex, and each gives opportunities for helpful relations with girls and women.

The Young Man's Relationship to Girls—The young man should think of all girls as the future mothers of the race, and understand that one of their most important functions in life is to become the mothers of healthy children who will make useful citizens. A nation may well be judged by its attitude toward women. The youth who is fair, will treat every girl as he expects others to treat his own sister.

In an accident at sea, when everyone is anxious to reach the lifeboats, the rule for all men is, "women and children first." If a man rushes in ahead of them, he is looked upon as a coward. It is more important for men to protect girls and women from other dangers, especially from those dangers which threaten to ruin their lives. Every man who has any principle believes in fair play. He despises cheating. The young man who is fair will adopt for his own life the same standard he demands of the woman he expects to marry some day. Each youth who grows up and marries becomes a link in a great chain of human beings. This chain reaches back into the past for thousands of years, and it may reach forward into the future for an even longer time. One false step may infect the racial stock and blight the lives of generations to come. If the young man keeps his body in good condition and lives a clean life, his descendants will in all probability be vigorous and useful citizens. The spark of life is to be accepted as a sacred trust to be transmitted undimmed to future generations.

Masturbation—Sometimes boys and young men are tempted to abuse the sex organs. If one, because of ignorance or weakness, makes this a practice, he runs the risk of missing the vigor he might otherwise achieve. Other serious effects are the weakening of the will-power and the loss of self-respect. If a boy or man who abuses himself stops immediately, once and for always, nature comes to his rescue and aids him in recovering self-respect, courage and vigor of mind and body. He can generally recover from any loss he may have suffered by a healthy, out-of-door life, with abundant exercise. To continue this habit will cause epilepsy, softening of the brain, insanity and moral imbecility. It makes the victim selfish, mean and contemptible in his whole physical appearance. If he persists in this demoralizing habit, he will have to be put in a straight jacket with his hands tied behind his back to prevent the inevitable result, which will speedily be insanity and death. The writer has visited many insane asylums throughout the United States and found out from the wardens that a majority of the inmates were there from this debasing vice. Many young men will laugh at this advice and warning now, but when older will mourn and regret their early indiscretions.

When this vile and debasing habit begins to show its effect upon the boy or young man, it not only destroys his health, but the mind and character. It affects his honor, ambition, energy, manhood, honesty, and veracity to such an extent that he cannot be relied upon, often complains of headache, gets weary at any exercise, pain in back, has cold, clammy hands, poor appetite, losing flesh, has poor digestion, heart becomes weak and palpitates, cannot sit erect and becomes flat chested; the lustre of the eye fades and he becomes pale, inability to study, nervous, bashful, timid, and often found alone; inclination to shun society; and sometimes the face is covered with blotches and pimples.

The foreskin of the sex organ should be in such a condition that one can draw it back when bathing and wash it clean. This will prevent the accumulation of an irritating, cheesy substance under the foreskin. If the condition of the organ prevents it thus being kept clean, circumcision may be resorted to upon the advice of the family physician. The youth should not worry if the sex organ becomes hard and erect at time. If he is wise he will pay no attention to this.

SELF-POLLUTION.

There are various names given to the unnatural and degrading vice of producing venereal excitement by the hand, or other means, generally resulting in a discharge of semen in the male and a corresponding emission in the female. Unfortunately, it is a vice by no means uncommon among the youth of both sexes, and is frequently continued into riper years.

Symptoms—The following are some of the symptoms of those who are addicted to the habit: Inclination to shun company or society; frequently being missed from the company of the family, or others with whom he or she is associated; becoming timid and bashful, and shunning the society of the opposite sex; the face is apt to be pale and often a bluish or purplish streak under the eyes, while the eyes themselves look dull and languid and the edges of the eyelids often become red and sore; the person can not look any one steadily in the face, but will drop the eyes or turn away from your gaze as if guilty of something mean.

The health soon becomes noticeably impaired; there will be general debility, a slowness of growth, weakness in the lower limbs, nervousness and unsteadiness of the hands, loss of memory, forgetfulness and inability to study or learn, a restless disposition, weak eyes and loss of sight, headache and inability to sleep, or wakefulness. Next come sore eyes, blindness, stupidity, consumption, spinal affection, emaciation, involuntary seminal emissions, loss of all energy or spirit, insanity and idiocy—the hopeless ruin of both body and mind. These latter results do not always follow. Yet they or some of them do often occur as the direct consequences of the pernicious habit.

The subject is an important one. Few, perhaps, ever think, or ever know, how many of the unfortunate inmates of our lunatic asylums have been sent there by this dreadful vice. Were the whole truth upon this subject known, it would alarm parents, as well as the guilty victims of the vice, more even than the dread of the cholera or small-pox.

Preventive Measures—When the parents are satisfied that their child is indulging in this habit, *take immediate measures to break it up.* It is a delicate matter for parents, especially for a father, to speak to his son about. It is different with the mother; she can more readily speak to a daughter upon subjects of that nature, and if guilty, portray to her the danger, the evil consequences and ruin which must result if the habit is not at once and

forever abandoned. If persuasion and instruction will not do, other measures, such as will prove efficient, must be resorted to.

In case of a son, perhaps the better way will be for the services of the family physician to be engaged. He can portray to the misguided young man the horrors and evils of the habit in their bearing, and his caution and advice will have weight.

How to Detect and Prevent Secret Vice.—Examination of the linen is usually conclusive evidence in the case of boys; the genital organs, too, receive an undue share of attention. The patient should be constantly watched during the day until he falls asleep at night, and be required to arise directly he wakes in the morning. In confirmed cases the night-dress should be so arranged that the hands cannot touch the genital organs.

Under no circumstances should nurses ever be permitted unnecessarily *to handle or expose the genital organs of children*, and children should be taught at the very earliest period that it is immodest and even wrong, to handle the parts. When at school, as well as at home, *every boy should have a separate bed.* The neglect of this important advice is a frequent cause of bad habits being taught and practiced. In addition to a separate bed, he should be able to dress and *undress apart from the observation of others.* The necessary privacy may be secured by partitions placed between the beds, but not extending up to the ceiling, so as to interfere as little as possible with the ventilation. One of the few articles necessary in the sleeping-room is a *sponge bath.* This, with a good-sized piece of honeycomb sponge, and a large towel or sheet, complete the outfit. The regular daily use of the sponge bath conduces greatly to the cure or prevention of self-abuse. The too free use of meat, highly-seasoned dishes, coffee, wine, late suppers, etc., strongly tend to excite animal propensities, which directly predispose to vice.

A Terrible Evil.—*In the City of Chicago in one school, an investigation proved that over sixty children under thirteen years of age were habitually practicing this degrading, health and life destroying habit, while among the older ones the habit was even worse, though not so easily detected.*

In a country school in Black Hawk Co., Iowa, one bad boy secretly taught all the rest until the entire school practiced this private vice during the noon hour when the teacher was away.

In New Orleans nearly all the pupils in a large female boarding school were practicing this horrible vice and the scandal of the fearful discovery is not yet forgotten.

Worth Millions.— *The foregoing article on self-abuse should be in the hands of every young person as it would be the means of saving many bright intellects from becoming stupid or imbeciles, or lunatics or from filling premature graves and be worth to them more than Astor's millions.*

D. S. BURTON.

The above is an illustration of D. S. Burton of Harris, Pa., before the habits of secret vice had begun to tell on him.

The illustration on the following page shows the same young man three years later taken when he had become an inveterate victim of the vice.

D. S. BURTON.

The doctor's opinion was: "If this young man escapes the asylum he and his parents will be fortunate."

The instructions in this volume will save many a young man from swelling the list of the unfortunate that are in the asylums all over the country.

DIVISION FIFTEEN.

IN THIS DIVISION OF THE BOOK ARE FULL INSTRUCTIONS HOW TO

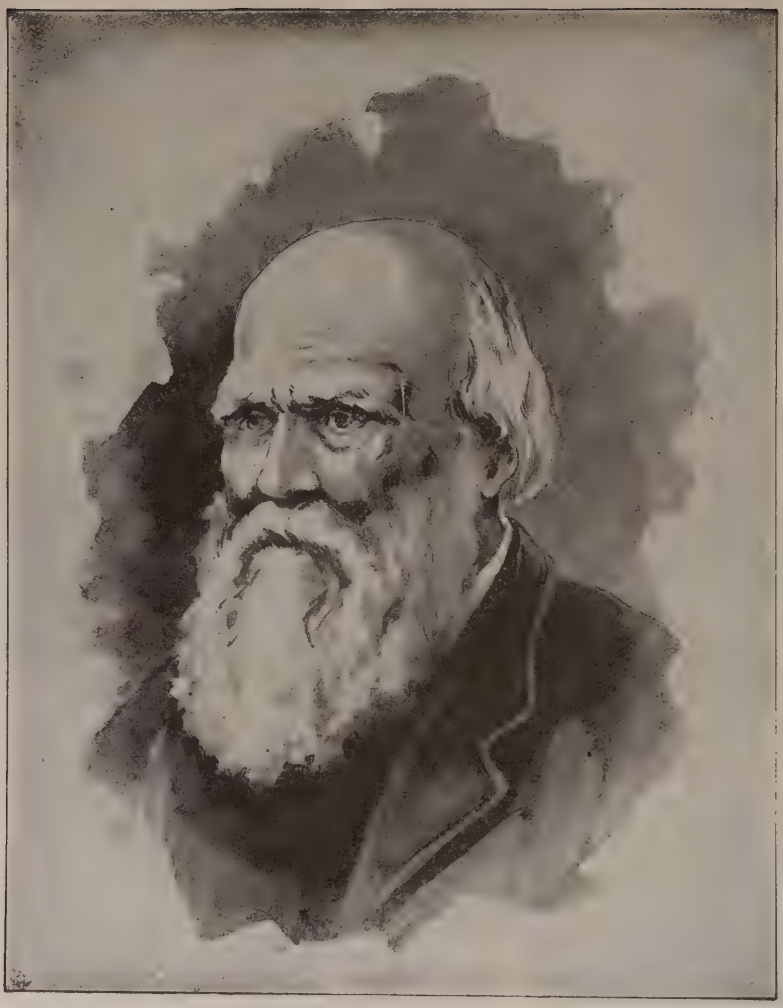
KEEP OLD AGE MATTER OUT OF THE SYSTEM

AND

MAINTAIN, UNTIL A RIPE OLD AGE, THE APPEARANCE OF THOSE IN THE PRIME OF LIFE

Medical and scientific men now agree that this can be done to the 100-year limit, by following the instructions set forth, especially those on pages *878* and *879* of this book, and with it the means of prolonging life to a very great age.

The authors of this book give specific directions how WRINKLES may be avoided and OLD-AGE look prevented.



THOMAS PARR.

Of Shropshire, England, aged 152 years 9 months.

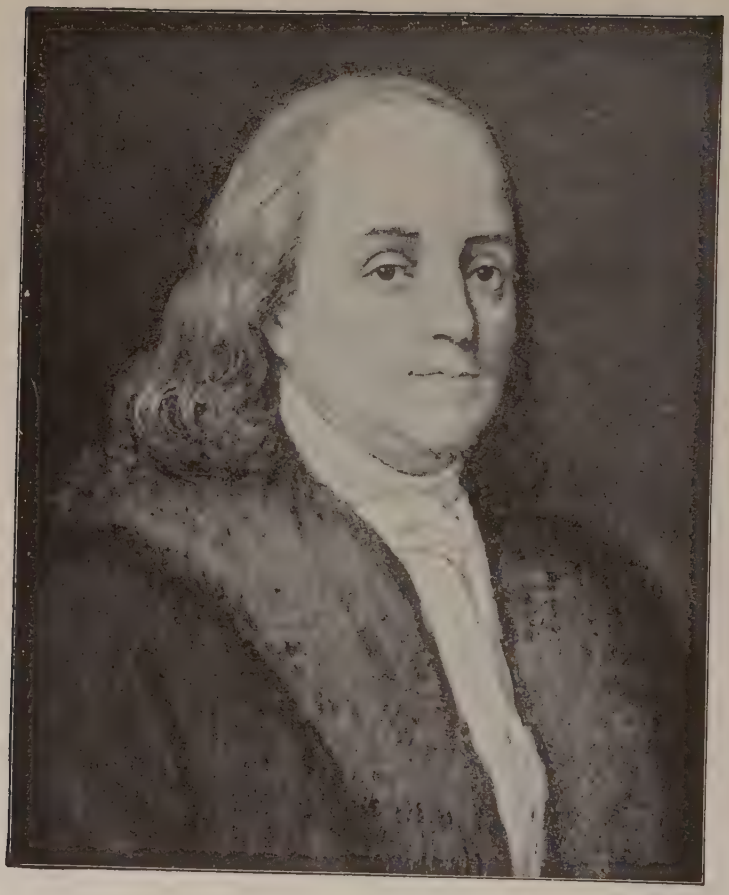
HOW TO LIVE OVER 100 YEARS.

Recent Discoveries. Recent investigations have proved that here and there persons have attained the ripe old age of from 125 to 185, one man in Hungary reaching the latter period. While these parties could rarely say by what means they attained such age, more recent discoveries and observations have plainly disclosed the way. By following the very simple method described on pages 878 & 879, almost anyone in ordinary health can add from 20 to 40 years to his life and live to be a centenarian and even more.

DON FRANCISCO GARCIA,

One Hundred and Twelve Years Old, Resident of California.

If people generally were informed by what simple means (recently discovered), most people could attain the age of 100 to 130 years or more, there would be almost a stampede in that direction.



BENJAMIN FRANKLIN

Benjamin Franklin's prescription for good health has never been surpassed. "Early to bed" is the first essential; simple food at regular hours the second, and exercise every day with not less than twenty-five deep breaths a day and four glasses of water, complete the prescription, which will bring renewed health and energy to any one who tries it and sticks to it. We can do so much for ourselves if we would but realize it.

METHUSELAH OF BIBLICAL FAME.

AGED 900 YEARS

Some people then knew how to live long.

We are just now learning how to prolong life.

THE LAW THAT ENABLED THESE MEN TO LIVE TO SUCH ADVANCED AGES WILL DO THE SAME FOR THOUSANDS MORE.

THE LAWS OF CREATION ARE INEXORABLE. Why these men lived to such ripe ages, and how others may do the same.

SANDOW, THE GREAT MUSCULAR GIANT.

Scientists tell us that the causes of these strong men's premature death is "an impeded blood circulation, caused by coating and clogging of the blood vessels," rendering them easy victims of disease, and they die from what is termed "Heart Failure." When their blood vessels are kept cleared from these deposits, these strong men—and weaker ones, too—can live to a ripe old age, reaching 150 to 200 years or more.

WHY STRONG MEN DIE YOUNG

Strong Men Die Young—Persons with extraordinary muscular strength "strong men" certain products of "physical culture" manage to acquire over-development of certain groups of muscles, and certain professional athletes, trained by unwise trainers, are not only deficient in general health status as compared with ordinary persons, but are short lived. Excessive muscular development, overtraining, the freak development of the physical culture victim, does tax a man's heart and make him more vulnerable to purely mechanical failure of the heart in an emergency. Overgrown muscles sap a man's energy; they act as parasites on the body. Intelligent training does not seek, in fact, strives to avoid, hypertrophy, which is a great enlargement of the muscles of the body, or any of them, including the heart muscle itself; scientific training aims to develop freedom of movement, agility and endurance, not enormous strength. It is true that all athletic training involves a certain amount of overdevelopment of the right side of the heart, which pumps the blood to the lungs. When an athlete develops his "wind," or gets "second wind" that means that the right side of his heart has gained greater efficiency and is doing more work than it formerly could do without distress. A prominent physician states that it is for this reason that football should be prohibited in high school or other institutions for boys who are still growing rapidly, for such boys cannot safely train in a few weeks without seriously endangering their hearts, which are already taxed to keep pace with the rapid growth. Neither is a marathon race a proper thing for growing boys. A man's wind depends largely on the condition of his heart. When he finds himself growing quickly breathless, or short of breath on exertion, it is time for him to seek medical attention. Any one who cannot hold his breath while sitting at rest for forty seconds by the watch ought to visit his doctor for a general examination.

The Life Extension Institute has formulated sixteen rules of health.

There is so much said about the various things one must do to keep in good health that we are likely to become confused. It is therefore of great value to get the essentials boiled down into clear and concise shape.

1. Ventilate every room you occupy.
2. Wear light, loose and porous clothes.
3. Seek out-of-door occupations and recreations.
4. Sleep out, if you can.
5. Breathe deeply.
6. Avoid overeating and overweight.
7. Eat sparingly of meats and eggs.
8. Eat some hard, some bulky; some raw foods.
9. Eat slowly.

10. Use sufficient water internally and externally.
11. Evacuate thoroughly, regularly and frequently.
12. Do not allow poisons and infections to enter the body.
13. Stand, sit and walk erect.
14. Keep the teeth, gums and tongue clean.
15. Work, play, rest and sleep in moderation.
16. Keep serene.

Of course to get the most out of these words of advice they should be taken not as rules, but as principles; that is, they should be mixed with common sense and adapted to one's circumstances and physical condition.

Each of them is a generality, but it is well to keep in mind what someone said, to the effect that "all generalities are false, including this one."

One thing to be noted is that the observance of one or more of these rules is going to hurt a bit, is going to require some sacrifice, but a generality to which there is hardly an exception is that no good thing can be obtained without effort and self-sacrifice, and this holds particularly true in regard to health.

We may dodge the penalties of laziness, overindulgence and neglect almost anywhere else better than in regard to our bodies.

These bodies were made for vigor, for the forthputting of all their faculties.

And the brain in them was made to control the body.

We always pay the penalty when either of these functions fails.

Intelligent physical culture has very often brought one out of a state of illness into health, but it does something which is vastly more important than that; it keeps one in a state of health. When it comes to matters of bodily vigor, an ounce of prevention is worth a pound of cure.

WORDS OF PEARL

1st. Always stop eating with a good appetite.

2nd. When ailing, stop eating for a day or two and you will soon be well, in nine cases out of ten.

3rd. A mother should never be guilty of the reprehensible act of covering the face of her young infant, in doors or out. In the glaring sunlight shade its eyes.

4th. A mother should always teach her child to rinse out or wash out its mouth after each meal, which is as essential to cleanliness as washing of the table dishes.

5th. Chew each mouthful of food thoroughly and swallow it before another one is taken; in other words, eat slowly.

6th. People should never attend the banquet feast except when there is a natural demand; otherwise health is injured and life shortened. As a rule, people should sleep in separate beds. It is far more healthful.

HOW TO LIVE INDEFINITELY.

New Science of Securing Perfect Health and Happiness. Sickness and Sorrow Needless Woes.

The Lord never intended that man should be sick any more than He wished him to starve. But He did not give him food directly nor perpetual health without effort. He did give him a fruitful earth and ability to make that earth yield food in plenty, and He did give him a mind wherewith to study and learn how to preserve his health indefinitely. Only mankind has worked so much harder to make the earth yield all sorts of material luxuries that he has neglected until these latter days to study his own power of getting well and keeping well. By mere accident some few have discovered this and that accounts for the miracles at shrines and at special resorts. It accounts too, for the real, though partial, success of the Christian Scientist, the Mind Healer, the Dowieite and others.

The truth as first fully promulgated by Harry Gaze of London, but also known, practiced and taught by several others both in this country and Europe, is that within each person lies dormant the power to cast out disease of all kinds and obtain perpetual health and full physical and mental strength and beauty.

The wise man of old said: "As a man thinketh in his heart so is he." If you permit no thought of disease and death to enter your mind you will have accomplished nine-tenths of the battle to stave off these foes. If you think you'll take cold you are ten times as apt to take cold as you are if you *think* you will not take cold. The other tenth lies in the simple safeguards of breathing plenty of fresh air and eating only suitable foods.

Each person needs at least 300 cubic feet of fresh air per hour to breathe. The air he breathes in supplies oxygen to burn up the refuse brought to the lungs. The air he breathes out contains the dead matter or waste. The body is constantly changing. The old idea was that the body is wholly renewed once in seven years, but according to Prof. Flammarion and other modern scientists, in a little less than one year the entire body, muscles, bones and all is renewed, all the old body having been in the meantime gradually consumed and discharged through the breath, the perspiration, the urine and the fæces. Hence it is absolutely necessary to keep these avenues of discharge acting fully and freely. Habits of breathing deeply and regularly, as you do naturally during sleep, should be formed. A good practice is to spend a few minutes every morning and evening in deep breathing, saying to yourself as you breathe in, "I'm taking in life," and when expelling the breath, "I'm breathing out death." For that is actually what you do. Tight clothing must of course be absolutely discarded.

Sufficient pure air taken into the lungs is an absolute specific against colds and pneumonia and is the greatest single factor in

maintaining the blood pure. Impure blood is the cause of nearly all disease, for the natural powers will destroy disease germs that find their way into the system if the blood is pure.

Eating too much is the chief cause of impure blood, next is the eating of improper and improperly cooked food. Third is anger or violent thoughts of any kind, worry or depression. It has been scientifically demonstrated that anger poisons the blood both in men and in animals. Unwholesome thought as well as unwholesome food vitiates the blood. The first step, therefore, toward attaining constant health is to form habits of right thoughts, the second to eat sparingly of proper food, third to breathe deeply of pure air.

Habits of right thought are formed by spending some time, ten minutes will help, an hour were better, in concentrating thought, the whole body at the time being relaxed. All thought is power, but calm, deliberate thought is most effective. Think of joy and a feeling of gladness steals over you. Think of health and you unconsciously begin to feel more comfortable, think of strength and you are already stronger.

As to food one needs to be guided by circumstances. Avoid sudden changes. Health and strength are promoted by avoiding meat but if accustomed to eating meat discard it little by little by substituting nuts, cheese and fruits.

No being possessing animal life subsists on cooked food, except man, and there is no being so unhealthy as man.

The ideal diet is nuts and fruits, preferably in the raw state, not green or overripe. This is known as the fruitarian diet that Adam and Eve lived on in the Garden of Eden. The vegetarian diet is intermediate between this and the animal diet. Vegetarian diet is better than animal but is not ideal, containing an excess of waste matter for the system to handle. Some people say they cannot eat fruit, but this is simply because they have taken it in connection with indigestible pastry or mixed with conflicting cream or sugar. Fruit should be eaten without either sugar or cream.

The ideal food for maintaining health and beauty, as already stated, is nuts and fruits as the exclusive diet. Prof. Gaze, while teaching classes all day and lecturing every evening at Los Angeles, Cal., lived for two months, January and February, on absolutely nothing else but nuts and ripe fruits. He took to this diet because he was then quite indisposed. At the end of the first month he found he had lost eight pounds in weight. At the end of the second month he found that he had regained the eight pounds in full and declared that he never felt better in all his life than at the end of those two months, nor had he ever had harder or more exacting work.

Exercise and activity are absolutely essential to life and health. It is a mistake to "retire" because of age. There is no "age," for the body is but little over one year old in any event and it is the thought that makes you become incapable.

Captain Diamond of San Francisco was 107 years old in 1903.

Yet he taught a class in physical culture and claimed to be able to walk 20 miles in a day without undue fatigue. At 70 he was an "old man," weak and near the end, according to the doctors. Then he learned of the power of thought and right eating and breathing and the result is apparent. A score of similar instances might be cited.

Life Prolonged Indefinitely.

We know little of the life of early mankind, but we are reasonably sure that some lived to be 500 and up to 900 years of age. But the thought of death, on seeing earthly things die, hastened their end. Today, as ever since the earliest times, every child is born and reared and passes through life in the belief that in a little time he must sicken and die.

Man is endowed with two minds, the conscious and the subconscious. The latter preserves the activity of the vital organs when in sleep and when by accident or otherwise we are unconscious. But it is directly subject to the influences of the conscious mind, and if this holds steadily to the belief in gradual decay and death, the sub-conscious will gradually lessen its action and thus cause decay and death.

The new science teaches that if we can live from infancy, or better yet, prior to birth, by the unconscious power of the parents' thought, in the belief and expectancy of permanent life, then life can be maintained indefinitely by merely following the plan of life already outlined, a plan that will sustain the body by giving it only the food and drink necessary for renewal of the worn and waste particles without undue deposit of excess matter which clogs the natural channels of harmonious existence.

If the child is taught this belief and made acquainted with his natural powers of sustaining life indefinitely and grows up in a realization of the supreme influence of his thoughts and beliefs, there is no reason why he should not live forever as a human being in perfect health and with all his God-given capacity for enjoyment and happiness constantly retained, as the latest scientific investigations seem to prove.

Many imagine that to live the life that will give them perpetual health means that they must forego what they term the pleasures of life, but this everyone who has attained the higher life knows to be the opposite of the truth. In fact, the latest scientific study proves that the welfare of the body is best promoted, not by repression, but by proper expression of the normal physical appetites and desires. When we have cultivated right habits of thought and have all our passions and appetites under intelligent control, the pleasures of the physical nature are immeasurably prolonged and increased. Real joy and happiness are not attained through the isolation of the monk, nor yet through ignorant self-indulgence of abnormal or acquired tastes, but they do follow the self-discipline necessary to obtain full mentral control of bodily functions and the controlled expression of bodily appetites.

LIVE 75 YEARS AND 75 MORE.

After we have lived seventy-five years it is perfectly reasonable to add another seventy-five years in reasonable health and spirits. How to live a century and over is briefly told in the following paragraphs:

Oldest Men of Recent Authentic History.—Thomas Parr of Shropshire, England, lived to be 152 years and nine months old. Henry Jenkins of Yorkshire, England, died at the age of 169. John Rovin of Temesvar, Hungary, lived 172 years, his wife 164 years; Peter Zartin of the same place 185 years. Many in the United States attained ripe old ages, notably among whom was Henry Francisco of Whitehall, N. Y., who died in his 135th year.

Eminent scientists assert that man's body under favorable conditions may last 300 years or more.

The bones may endure for 4,000 years.
The lungs " " " 1,500 years.
The skin " " " 1,000 years.
The stomach, heart, liver, each 300 years, or more.
The kidneys 200 years, or more.

The principal reason why men become diseased or die sooner is because of the deposit of *animal soil* or of insoluble solids in the organs of life. Dissecting the body, as well as examination by the wonderful *x*-ray has proved the existence of these deposits in the arteries and veins, in the heart, the liver, the kidneys, the joints, &c. And how did these deposits get there? Almost exactly like the stony or chalky deposit gets on the bottom and sides of your old tea kettle. Look at it. The doctor says "There is ossification of the membranes and the patient cannot live." But *he can live if the cause* of this "ossification" is removed and something given that will gradually absorb and carry off these bony and stony deposits instead of all the time adding a little to them.

And Now the Remedy.—It is certainly the greatest as it is the simplest on earth. Every one knows that all water that touches the earth has taken up (absorbed) some solid impurities. You can put two tablespoonfuls of salt in a glass brimful of water without the water running over if you do it slowly enough. Fresh rain water absorbs filth from the air and also from off the roof and is likewise contaminated. *When you drink the water that holds impurities or mineral solids suspended in it, these solids will as surely leave deposits in your system as they do in your tea kettle.* If you eat food cooked with such water you eat some of the stony matter. You can not escape it. Hence the cure must be found in taking out of the water all this injurious matter before you drink it or cook your food in it. This is done by distilling, done absolutely and fully. Science has proven also that distilled water has a wonderful power of absorbing mineral and animal solids, so that the constant use of pure (distilled) water will not only stop the further life-shortening deposits, but will gradually take up

absorb and carry off the deposits already in the system. For the water goes through the whole system. Drink a big draught on a hot day and you soon sweat out a goodly portion of it. It had to go all through the body to get from the stomach to the skin. This is the first part of the remedy.

Second part of the Remedy.—Pure water alone would not enable a person to live 200 years in good health. He must *avoid eating food which will leave deposits of animal soil around the kidneys.* Too much meat will do this. The system can use but a small proportion of nitrogen which is the chief food part of meat, the fiber is simply waste. If too much of this waste is taken into the stomach it begins slowly to deposit here and there some of this foul waste. The result after a time is disease caused by the slow poisoning from this deposit. Distilled water dissolves these deposits. So will the free use of ripe fruit, especially apples, peaches, grapes, oranges (the juice not the pulp), cherries, plums and berries.

Dr. Wm. Kinnear wrote as follows (*North American Review*, June, 1893):

"Very few people, it is safe to say, desire old age. We cannot defy death. But we may by searching, find certain secrets of nature and apply them to the renewal of the organs whose decay is constantly going on in the body. Anatomical experiment and investigation show that the chief characteristics of old age are deposits of earthy matter of a gelatinous and fibrinous character in the human system. Carbonate and phosphate of lime, mixed with other salts of a calcareous nature, have been found to furnish the greater part of these earthy deposits. Of course these earthy deposits, which affect all the physical organs, naturally interfere with their functions. Partial ossification of the heart produces the imperfect circulation of the blood, which affects the aged. When the arteries are clogged with calcareous matter there is interference with the circulation upon which nutrition depends. Without nutrition there is no repair of the body Hence, G. H. Lewes states, that 'if the repair were always identical with the waste, life would only then be terminated by accident, *never by old age.*'

Paradoxical as it may sound, certain foods which we put into our mouths to preserve our lives, help at the same time to hurry us to the inevitable gate of the cemetery. A diet made up of fruit principally is best for people advancing in years, for the reason that being deficient in nitrogen the ossific deposits so much to be dreaded are more likely to be suspended. Moderate eaters have in all cases a much better chance of long life than those addicted to excesses of the table. Mr De Lacy Evans, who made many careful researches in these regions of science, comes to the conclusion that fruits, fish and poultry, and young mutton and veal contain less of the earthy salts than other articles of food, and are therefore best for people. Beef and old mutton usually are overcharged with salts and should be avoided, If one desires to prolong life, therefore, it seems that moderate eating and a diet containing a minimum amount of earthy particles is most suitable to retard old age by preserving the system from blockages.

The powerful solvent properties of distilled water are well known. As carbonate of lime exists in nearly all drinking water, the careful distillation eliminates this harmful element. As a beverage, distilled water is rapidly absorbed into the blood; it keeps soluble those salts already in the blood and facilitates their excretion, thus preventing their undue deposit. The daily use of distilled water is, after middle life, one of the most important means of preventing secretion and the derangement of health. Hence, to sum up, the most rational modes of keeping physical decay or deterioration at bay, are thus retarding the

approach of old age, are avoiding all foods rich in the earth salts, using much fruit, especially juicy, uncooked apples, and by taking *daily* two or three tumblerfuls of distilled water."

HISTORY AND WONDERS OF THE X-RAY

as here given should be read by everyone who wishes to keep up with the times. Its help in surgery and in locating internal disease is marvelous.

Genuineness of Precious Stones.—No imitation of gems, no matter how perfect in appearance, can possibly pass the scrutiny of the X-ray.

The X-ray will reveal, accurately, the contents of a trunk or satchel though these be locked and strapped ever so tightly. The would-be smuggler stands no chance of hiding his costly jewels or bric-a-bac from the scrutiny of the customs inspector armed with the X-ray.

Wonderful X-Ray.

In 1895 Prof. W. K. Roentgen, of Wurzberg, Germany, made a discovery of great importance to the medical world and of especial value in surgery. Shorn of all technical terms the discovery was simply that when an electric light was placed in a Crooke's tube (a big, long glass tube from which most of the air had been exhausted) some of the rays of light would pass through dense matter like clothing or wood or leather or flesh, and so light them up as to make these things transparent, that is, it enabled one to see the body through the clothes—to see the bones through the flesh. The light which easily penetrated clothing and flesh would not go through metal or bone. Thus a gloved hand exposed between this ray and a camera would produce a photograph (or skiagraph as it is called) of only the bones, the buttons on the glove and the rings that chanced to be on the finger. Expose the body, and a skiagraph would appear, showing clearly in the picture the internal bones and any irregular or improper piece of bone or any foreign substance of metal or glass or stone. The intervening flesh or clothing would not appear or appear only as an indefinite transparent haze. This Roentgen ray—or as it became generally known, the x-ray, because nobody knew what this peculiar ray of light is, and x is used in mathematics to represent the unknown or the to-be-found-out—this x-ray is rapidly coming into use to determine the presence in the body of sesamoid bones, or of foreign substances such as bullets or pins, needles or other things which may have been accidentally swallowed. It also shows clearly the position of a bone broken or crushed in an accident or otherwise. Shows whether it has been properly set, etc., and especially shows the exact condition of the joints.

Diamonds Detected.—Another use of the x-ray is in determining the genuineness of precious stones. Each gem casts its own peculiar shadow when a skiagraph or x-ray photograph of it is taken. Thus the pure diamond casts a faint translucent shadow. Any imitation diamond, no matter how perfectly made, throws a picture whose difference is at once apparent. It is much darker. No one could mistake it for an instant.

This is from an *x*-ray photograph of the hand of a son of a prominent physician in Chicago. The young man's hand was swollen and sore. The *x*-ray revealed the trouble as a growth upon the bones in the palm of the hand. Thus seen it was easily remedied.

SKIAGRAPH OF THE ARM OF JAMES QUINN.

It was so badly swollen when he reached the doctor that the possible break could not be located. The X-ray showed the surgeon exactly where the break was and enabled him to set it properly.

CHIROPRACTIC

It is a scientific method of adjusting the cause of disease without drugs or instruments and claims to be based on a correct knowledge of anatomy, especially the nervous system. The Chiropractic idea is that the cause of disease is in the person afflicted, and the adjustment in correcting the wrong that is producing it. The Chiropractic holds that the function of every organ in the body is controlled by mental impulses from the brain, which it transmits through the nerves. Any impigment of these nerves interfering with the transmission of mental impulses results in an abnormal function called disease. This interference is produced by subluxated vertebrae pressing upon nerves as they pass out from the spinal cord. The trained adjuster is able to locate the point of obstruction or interference and, by means of adjusting the subluxated vertebrae, corrects the cause, and normal condition.

The principles of Chiropractic was discovered and founded in 1895, by D. D. Palmer, of Davenport, Iowa, where the school is still located, and has had a wonderful growth.

Danger in the Ray.—In order to secure a "skiagraph" of any part of the body it is necessary to expose the parts for from one to ten minutes, or sometimes fifteen minutes, to the action of the light or *x*-ray. The person, of course, feels absolutely nothing of the effect of the light, which is perhaps two feet away and enclosed in a glass case. But in a week or so, especially after the longer exposure, the place sometimes becomes sore, showing all the effects of a deep burn. The sensation begins by an intense itching; it soon becomes red and inflamed or even blistered and is very sore and slow to heal. It was found, however, that by covering the skin over the place to be exposed to the *x*-ray with glycerine no "burn" resulted.

Diseased Organs Identified.—When an *x*-ray picture is taken the bones and foreign metallic, glass or stony articles, show clearly, but a shadow is also cast by the internal organs, and as these differ in density, their outlines may usually be determined. Whenever any organ is inflamed it will show a darker outline than normal. If enlarged it will be apparent. Thus fevers may be recognized, tumors located or rupture of the walls of an artery detected. By these means medical treatment which was based upon guess-work, often wrong, may be made positive, accurate and successful. If a clot is forming on the brain the *x*-ray will detect it and show the surgeon how to save the patient's life.

OBJECT LESSON OF THE EFFECT OF CIGARETTE SMOKING.

The fearful effects of cigarette smoking upon the stomach and lungs, as elsewhere illustrated, can scarcely be exaggerated. The analysis of the material composing the cigarette, made by prominent chemists and physicians, proves that opium, the extract of tonka beans (which contain a deadly poison), and other injurious substances invariably are used in the manufacture of an acceptable cigarette. What is known as "Havana flavoring" (tonka bean extract), is sold by the thousand barrels. The wrappers, which are popularly known as rice paper, are never made from rice, but, on the contrary, either from common paper, which makes the poorer grades, or from rag scrapings bleached white with arsenic, which makes the better grades. It is all cheap, but chemically foul and highly injurious. Cigarette smoking ruins the memories, the health and the morals of millions of boys throughout our country because of the sediment of poison which it deposits in the lungs and stomach and thence into the blood and brain.

Such eminent physicians as Sir Morell Mackenzie of London, England, Dr. Hammond, Dr. Sayre and others, have described such maladies as heart disease, cancer, epilepsy and insanity as directly due to the peculiar insidious poison from cigarettes.

A Healthy Stomach.

Inflamed Stomach of a Cigarette Smoker.

The use of cigarettes is ruining physically and mentally, **millions of boys.** Besides the danger of mental effects, the inflamed stomach is liable to give out before middle age. When a disease attacks a person of this kind, and it is more liable to than others, *their days are numbered.* **Every** young man should read the article on this subject in this book.

HOW TO SECURE HEALTH-PRESERVING BEDS.

One-third of your life time is spent in bed, and if that place is so conditioned as to cause sickness or disturbances in the body which will cause severe pain, rheumatic, neuralgic, etc., it is high time this were known and corrected.

The bed should be placed in a corner room or room having windows on two sides so as to secure perfect and free ventilation. The head of the bed should point to the north to secure the benefit of the magnetic currents that flow from the pole towards the equator.

The mattress should be of hair or of fresh straw, often renewed, or of excelsior. Feather mattresses are the worst. Feather covers are always dangerous, and if used should be thin and light weight. Heavy comforters are abominations and should be banished from civilized communities. All beds should be wide, the wider the better, especially if two occupy the same bed. On vacating the bed in the morning the covers should be thrown back and allowed to air for several hours, the longer the better. To make up the bed soon after it is vacated is to hold in its folds the poisonous gases that exuded from the body of the sleeper, and which are sure to contaminate the body of whoever next sleeps in that bed. Particles of putrid matter in the shape of gases have been known to lurk in such a bed for months. It need scarcely be added that strict cleanliness is absolutely necessary in order to keep the bed in a healthful condition.

PUTTING CHILDREN TO BED PROPERLY.

Foot Bath.—The first care of the mother should be to see that the child has a foot bath every night in warm weather and every second night or third night at other times. No woman who neglects this simple duty has a right to assume the rearing of a child. If the habit of the daily bath is formed from infancy it will seldom, if ever, be departed from in after life. Its value to the individual cannot be estimated in dollars and cents. Physiologists prove that it is more essential to keep the feet, especially the bottoms, clean than even the face.

Admit Pure and Expel Foul Air.—The next duty of the mother is to see that the windows are so arranged that one will admit fresh air all the time and another let out foul air. The bugbear of draught has laid the seeds of many a disease. It is a notorious fact that invalids camping out and sleeping out of doors and in the draft of a tent seldom or never take cold.

About the Covering.—Heavy bed covering should never go on a child's bed (or any one's bed). Thin single blankets or spreads, increased in number as the weather requires, are infinitely more healthful. Thick comforters are almost certain to prove too warm during the night and to be thrown or kicked off, resulting in a cold or cough.

CARE OF SKIN, COMPLEXION AND HAIR

To Beautify the Hands—To a wineglass of glycerine add the yolk of two eggs. Mix very thoroughly or rub in a mortar and bottle for use. No better preparation can be had for the hands.

For Whitening and Softening the Hands.—To one pint of cider vinegar add one ounce of saltpetre. This is one of the best preparations for the hands.

Brittle Nails—If the nails break easily, they should be soaked every night in slightly warm sweet almond or olive oil. The liquid may be put into a cup at a depth just sufficient to cover the finger tips. The same oil may be used several times. The soaking should be for ten minutes at least.

Hangnails—For a hangnail use collodion or new skin to coat the injury and give it a chance to heal.

Nail Biting—Both grown persons and children are aided in breaking the habit of biting their nails by dipping the finger tips in aloes. The following is also an excellent nail varnish for nail biters: Alcohol, 1¼ ounces; Chinoidin, ¼ ounce; Gum mastic, ¼ ounce; Gun myrrh, 1⅛ ounces. Mix. Let stand 48 hours, shaking the bottle occasionally. Apply with camel's hair brush. The preparation can be removed with either alcohol or hot water.

Nails are, as everyone knows, easily injured, and being so sensitive are very indicative of the person's state of health. A healthy person's nails grow quickly, and if the hands have never been abused or neglected, the nails grow out quite smooth and clear, showing the rosy skin underneath.

Ribbed or Ridged Nails—These are usually caused by a run-down system, old age, or sometimes by too much friction in polishing the nails. They can be cured if it is possible to find and remove the cause.

White Spots—White spots on the nails are generally caused from lack of care in manicuring. Be careful in pushing back the cuticle on the nail, that the air does not get under it. This removes the nourishment, and makes spots.

Sweaty Hands—For excessive sweating of the hands, paint the palms once or twice a week with a solution of ten grains of chromic acid in one ounce of water. This stains the skin yellow for a time. If that is objectionable, sponge the palms daily for a week with a solution of half an ounce of aluminum chlorid in two ounces of water. Or apply each night to the palms a pea-sized piece of the following ointment. Formalin, half a dram; menthol, two grains; lanolin, half an ounce; petrolatum, half an ounce. Or use a powder, once a day, for the hands made of boric acid, 98 per cent; salicylic acid, 2 per cent.

Ammonia for Hands—A drop or two of household ammonia in the water, when washing windows, dishes, etc., is very good.

Other remedies for chapped hands follow. Mutton suet 3 parts, lanolin, 6 parts, boric powder, 1 part. Melt suet and lanolin. Add boric powder, stir lightly until cool. Pour into moulds to harden.

Mrs. C. L. Chase.

Aged Fifty-nine Years; Was a Resident of Tokyo, Japan, for Twenty Years.

THE SECRET OF BEAUTY.

Mrs. Chase's face, at the age of fifty-nine years, was as smooth and free from wrinkles as at twenty-five. She used the simple Japanese method

By use of this remarkable discovery every lady may regain the bloom of youth.

INDIAN CHIEF, BIG BEAR.

This Indian chief at the age of eighty years had not a gray hair in his head.

Salol allays inflammation through its antiseptic properties, and menthol allays itching, so the following combination is excellent for treating chapped hands: 1 part menthol, 2 parts salol, 2 parts olive oil, 60 parts lanolin. Warm lanolin slightly and work in other ingredients. Equal parts of camphor and glycerine will make hands smooth and white. Rub in thoroughly before retiring. In cases of persistent hardening, the following formula is recommended: Tincture of benzoin, 4 drams; alcohol, 6 ounces; water, 10 ounces.

WRINKLES, COMPLEXION, PORES

For Preventing and Removing Wrinkles—To prevent wrinkles apply sweet almond oil to the face once a week, rubbing it well into the skin. To remove wrinkles apply it two or three times a week. Use an upward movement in rubbing it in, and always apply just before retiring at night. The best way is to massage it in with the tips of the fingers. This stimulates the blood vessels to greater activity, which is very important. With his treatment, one should keep a smooth face until a ripe old age.

Cleansing Cream Formula—Two ounces of oil of sweet almonds; ½ ounce spermaceti; ½ ounce white wax; ½ ounce rose water; 20 grains powdered borax; and oil of rose, four drops.

Melt the spermaceti and white wax together at a moderate heat, add the oil of sweet almonds, stirring it thoroughly. Dissolve borax in rose water and add the mixture slowly. Beat briskly and thoroughly until cold. Add four drops oil of rose. The odor of the rose water evaporates in the beating, therefore the need of the oil of rose.

Be sure that you get oil of sweet almonds and not oil of peach stone or any other substitute which unscrupulous druggists may try to palm off on you. This cream is a light cream color.

I advise you to have this formula made up by a druggist, who has, of course, the necessary utensils, but if you do make it up yourself use a white porcelain dish and a wooden paddle to beat it.

Greaseless Cream—A good formula for a greaseless cream, which cleanses satisfactorily, however, is tragacanth, 80 grains; glycerine, ½ ounce; boric acid, ½ ounce; oil of bergamot, 5 drops; oil of rose, 1 drop; oil of lavender, 2 drops, and water enough to make one pint. Dissolve thoroughly with moderate heat. Apply freely to the hands and face, using some friction or massage, and then wipe off with a soft towel.

For Sallow Complexion—For a sallow complexion it is said that nothing is better than to eat freely of common garden carrots. One way to prepare them is to boil them to a pulp in a little water, mash and rub them through a colander or sieve in the water in which they were boiled. Then season to suit the taste, with salt and pepper and a little butter. Dilute with hot water until drinkable, and take as much as is desired every morning. As the vegetable is food and perfectly harmless, it may be used freely for some time, unless it disagrees with the digestion.

Enlarged Pores—The following lotion will correct large pores, but is especially recommended for oiliness of the skin. Orange flower water, 6 ounces; tincture of benzoin, ½ ounce; witch hazel, 2 ounces. Mix the witch hazel and the orange flower water, shake lightly, and add to the tincture of benzoin. Apply this wash with a piece of absorbent cotton, night and morning. If the face is very oily, wipe it off once or twice a day with diluted alcohol. For mild cases of oiliness of the skin, 1 dram of boric acid mixed with 4 ounces of rose water is helpful.

Madam Blake's Wrinkle Pomatum—This is the celebrated wrinkle remover that was always sold for a large price, and under a positive guarantee. With this formula ladies can make, at the cost of a few cents, what would cost them several dollars to buy at the stores, and which, many times, can not be had at all. Formula: Cocoanut oil, 1 ounce; sweet Almond oil, ¼ ounce. Mix. Apply to skin and rub in thoroughly. To prevent wrinkles use one ounce weekly. To remove wrinkles, apply two or three times a week. ALWAYS RUB UPWARD. For persons who have an oily skin, 10 drops of tincture of benzoin may be added before using. (Be careful not to mistake this for "benzine.")

Freckles,—To remove—1. Put grated horseradish into very sour milk, and let stand for 4 hours; then wash the face with it night and morning. Another remedy is the following: Lemon juice, 1 ounce; powdered borax, ¼ dram. Mix and let stand in a glass bottle for several days, then rub on the face and hands night and morning. Two teaspoonfuls of lemon juice equals one ounce.

2. For the light "summer freckles" use equal parts of glycerine and lemon juice. Or, if the skin is too tender to stand glycerine, rub a fresh slice of lemon over the face, letting the juice dry on and remain for a time. The following formula is also effective: Lactic acid, 4 ounces; glycerine, 2 ounces; rose water, 1 ounce.

Sunburn—A few minutes of exposure to the sun will cause blondes more trouble than it will brunettes by an hour's exposure. An old veteran, Dr. Brown of Kansas City, says that he always greased himself well before putting on his swimming togs. The skin of the face, shoulder, arms and legs will not blister nor burn if it is well greased before being exposed. Treat sunburn by applying cloths wrung out in soda water. If the skin is very much irritated, use a sterilized mixture of equal parts oil and lime water.

Chapping of Face and Hands—To prevent—A famous lotion for rough, red or chapped skin, such as women suffer from their housework, is make by boiling, stirring constantly and adding water to make up for evaporation, a pint of water containing three teaspoonfuls (three drams) of boric acid, about a tablespoonful (eighty grains) of tragacanth in shavings or chips, half an ounce, (tablespoonful) of glycerine, until a clear thin jelly is obtained. Apply a few drops to red, rough, chapped skin two or three times daily, preferably immediately after washing and before the skin is quite dry. This lotion is often grateful to relieve the irritation of the face after shaving. It may be scented with any perfume desired.

Rough Skin—This is an old formula, but an excellent one for keeping the skin smooth. Apply at night. Formula: Glycerine, 2 ounces; rose water, 2 ounces; bay rum, 2 ounces; carbolic acid, 5 drops.

Scotch Method for Removing Wrinkles—Sweet almond oil, 1 pint; best tar, 1 tablespoonful. Mix, and heat in a tin cup set in boiling water; stir until completely smooth. Add more oil if compound is too thick to run smoothly. Rub this on the face before going to bed; lay pieces of soft cloth on the cheeks and forehead to keep the tar from rubbing off. The bed linen may be protected by laying old sheets over the pillows. Wash off the application in the morning with warm water and soap. Repeat until the desired results is effected. This formula has been successfully used by hundreds. It also makes the skin smooth.

Complexion Wash—Add grated horseradish to sweet milk. Let stand one-half hour, and then apply with a soft cloth. Another good wash is made by adding a piece of gum-tolu the size of a nutmeg or larger to a small bowlful of soft water. After thirty minutes soaking, it is ready to use. A few applications will soften the skin, remove tan, and in many instances, freckles. This is much more valuable in beautifying the complexion than many of the costly cosmetics. Many of the latter penetrate the pores, and are injurious.

Excessive Perspiration—A person who suffers from excessive perspiration cannot keep themselves too clean. At least one entire warm bath a day is absolutely necessary, and several local ones. The axillae (arm pits) need the most careful attention, so do the feet. In the matter of shields and stockings, eternal vigilance is the watchword. A fresh pair of stockings should be put on every day, even if it necessitates a washing every night before one goes to bed. A good remedy for perspiration is to wash the armpits and feet night and morning in lukewarm water and castile soap; rinse well and dry. Then apply freely of the following solution: Alcohol, 1 pint; salicylic acid, 2 drams.

Body Odor—The disagreeable odor emanating from the skin is technically known as "bromidrosis" and is very hard to entirely overcome. For the feet (after washing as recommended below), use a powder consisting of powdered boric acid 95 per cent, and powdered salicylic acid 5 per cent, dusting into the shoes every morning. After bathing, a solution of 40 per cent formaldehyde, one teaspoonful to one pint of water should be applied lightly to all parts that sweat excessively. This solution may also be sprayed or gently applied to the feet. It is well to have several pairs of shoes, allowing those recently worn to be well aired.

Red Nose and Cheeks—Sometimes the face is too red because the skin is so very thin that the blood vessels beneath are too apparent, but usually the cause is impaired circulation or digestion. In the former case little can be done except to keep the face well powered as a protection when exposed to inclement weather, but under the latter conditions attention to diet and the wearing of

loose enough clothing will help and the morning shower, outdoor exercise and deep breathing all conduce to the maintaining of a good complexion. Massage of the parts and application of spirits of camphor will help tone down a too high coloring.

Birthmarks, Moles, Scars—Afflictions such as these should be treated by a reputable skin specialist, and not hazard the face to possible permanent damage by incompetent operators.

Brown Spots—To remove brown spots, apply one to eight watery solution of hyposulphite of soda.

Face and Neck Bleach—There is a great deal of indiscretion among women in the use of bleaches. Never use on your face a bleach in which lead or mercury is used. Both of these ingredients are dangerously injurious. The following preparation has no harmful ingredients in it and it does effective work: Lactic acid, 1 fluid ounce; glycerine, 2 fluid ounces; tincture of benzoin, 2 fluid drams; and water enough to make 16 fluid ounces. If the skin shows slight irritation, discontinue for a day or two and use cold cream.

Dry Skin—If you are troubled with too dry a skin, use no more soap than is actually necessary for cleansing, substituting a good cold cream in its stead. Dry skin is prone to become wrinkled because the natural oil is lacking, so after the first coating of cream has been massaged into the skin and the face then dabbed and wiped clean with a soft cloth, put on a second coating of the cream every second night and let it stay on until morning. When about to be exposed to cold, wind or sun, rub in a little cream before applying this powder. This will help maintain the softness of the skin. Use a rice powder, or some brand of powder compounded for use on a dry skin, as this makes considerable difference.

Oily Skin—Rich, greasy foods must be substituted for a more wholesome diet.

The following lotion will also correct large pores, but it is especially recommended for oiliness of the skin: Orange flower water, 6 ounces; tincture of benzoin, ½ ounce; witch hazel, 2 ounces. Mix the witch hazel and the orange flower water, shake lightly and add to the tincture of benzoin. Apply this wash with a piece of absorbent cotton night and morning. If your face is very oily, wipe it off once or twice a day with diluted alcohol. For mild cases of oiliness of the skin, 1 dram of boracic acid mixed with four ounces of rose water is helpful.

Pimples, Blackheads—Every alternate night after a prolonged bathing with hot soap water and rinsing with hot, then cold water, sop on the skin with the fingers some of the following lotion, allowing it to dry on and washing off with tepid water next morning: Zinc sulphate, 1 dram; sulphrated potassium, 1 dram; rose water, 4 ounces. This is a mixture and should be shaken up well before using. Discontinue for a week or two if the skin becomes irritated.

Eyes, Care of—If there is no eye strain felt other than the natural tire after a day's work, there is no need of an eye wash.

However, it is a good practice, after the night washing to apply a warm cloth to the closed lids and letting it remain there a couple of minutes. This releases the eye muscles from the one set position they have been in, and rests them. Then in the morning, after bathing the face, repeat, using a cold water application to the closed lids. If the eyes are unusually tired or weak, then this wash is recommended: Boric acid, 1 per cent; sodium biborate, 1 gram; water camphor, 60 drops, and three ounces of distilled water. Apply with an eye cup.

French Remedy for Eyes—Bathe the eyes in cold water every morning on arising and every night before retiring. It is part of a French woman's religion to bathe her eyes. The cold water acts as a refreshing stimulant, and rests the nerve centers of the eyes, besides it cleanses the eye lids and eye lashes of specks of dust and germs which may be gathered there. It is a well known fact that very few women ever wear eye glasses in France. That is because they take good care of their eyes. As Lloyd George once said, during the Peace Conference, the "eyes have it."

Another good wash is boiled water in which a little salt—just enough to make the water taste salty—is used. The plain water will cause a smarting which the salt allays. It has the same effect as tears, the natural eye wash, which have a salty taste.

For tired eyes, a black silk handkerchief, or stocking, placed over the eyes will be found very restful when lying down during the day, or in lighted room at night.

Eyebrows and Eyelashes—With an eyebrow brush or a small, fine tooth brush, night and morning, brush your eyebrows to promote their gloss and train them into shape. If they are thin, rub yellow vaseline into them before brushing. Be very careful not to let any of the vaseline get into the eyes, as it is most irritating to them. Any ointment, in fact, used on the eyelashes and eyebrows must be applied with extreme care. The following tonic is excellent: Yellow vaseline, two ounces; oil of lavender, 15 drops, and oil of rosemary, 15 drops. Mix thoroughly. After you wash your face at night brush your eyebrows with a tiny brush upon which a few drops of the tonic have been placed. Particular pains must be taken if you apply this tonic to your eyelashes, as it will inflame the eyes, as any oil will, if it gets into them.

Hair, Care of—The hair should be brushed night and morning with a stiff bristle brush, using long even strokes, that do not jerk nor tear the hair, but remove dust and hair already loosened from the head. Many women with thick hair find most useful the brushes that have very stiff bristles in little clumps or groups on the brush instead of the brushes with bristles in great quantity, but wire brushes should never be used.

Shampoo the Hair with tincture of green soap. This is needed to restore the hair to a healthy condition. Any good quinine tonic is effective, or take: 1 ounce alcohol; 1 ounce distilled water; 1 ounce witch hazel; 50 grains of resorcin. Mix and massage into

scalp nightly. Borax or a few drops of ammonia will cut the grease in the hair if added to the shampoo, but they also have a tendency to promote grayness.

Salt Treatment for Falling Hair—Take a basin of water (rain water, if you have it, if not, any kind), and put into it enough salt to make it quite briny. Take a cloth, dip it into the salt water and rub it well into the hair all around the edge. Then massage it well into the scalp with the fingers. Then part the hair, and with a wet cloth rub the salt water well into the entire scalp and massage as before. Allow the salt to stay on the hair about half an hour. Then take warm water and wash the hair and scalp thoroughly. Wash in several waters or until all the salt is out of the hair. Do this every ten days or two weeks. After three or four applications, the treatment usually proves successful.

You may use the salt brine, as above, without following by an immediate shampoo. Let the salt stay on all night and in the morning brush out every particle with a good vigorous brushing. This is particularly good in cases of oily hair. Repeat two or three nights before shampooing.

Hair—To Prevent Falling Out—Make a strong decoction of white oak bark in water and use it freely. It is best to make but little at time and have it fresh at least once a fortnight.

Gray Hair, to Prevent—Hulls of butternuts, 4 ounces; infuse in 1 quart of water one hour; add ½ ounce of copperas; apply with a soft brush every two or three days. When sea air turns hair gray, it should be kept oiled with some vegetable oil; not glycerine, as that combines with water too readily. The water that potatoes have been boiled in applied to the hair prevents grayness.

2. Sulphur, 1 ounce; bay rum, 4 ounces. Mix and apply to the scalp once a day.

3. Make a tea of the roots of common grape-vines, and wash the hair with it once a month. Some use it two or three times a month for a while when they discover a tendency to become gray. It is the method in use by the Indians. The root, or the bark of the root, of the grape-vine can usually be obtained at drug stores.

Superfluous Hair—For permanent relief nothing is as effective as the electric needle for the removal of superfluous hair, and where the superfluous hair is on the face, the electric needle is always recommended. However, a good depilatory may be applied to the arms or other parts of the body where it is desirable for superfluous hair to be removed. The following is one of the best depilatories: Sulphid of barium, 2 drams; oxide of zinc, 3 drams; starch, 3 drams. Mix these well and keep tightly corked. When you go to apply this depilatory, you add sufficient water to make a paste. This paste is then spread over the part and allowed to remain on for a couple of minutes. Then wash it off and apply cold cream, or soothing ointment. There will be resulting irritation. Generally you can tell when the paste has been on long enough by a slight burning sensation.

Peroxide of hydrogen may be used in milder cases. It bleaches the hair. It should be diluted with equal parts of water and the strength gradually increased. It is applied by using a piece of cotton wet with the solution. This must be repeated daily for a while until the desired result is obtained. An application of equal parts of peroxide and ammonia will bleach the hair first and after many applications tends to rot it.

Hair, Curly—A mixture that will help to keep the hair in curl is made by using 2 ounces gum arabic; 1 ounce salts of tartar; ¼ pint orange flower water; 1½ pint rose water. Mix thoroughly and tint with carmine if color is desired.

Curly Hair—To keep the crimp or curl in the hair, boil ¼ ounce of Iceland moss in a quart of water, and add a little rectified spirits to keep it. Perfume to suit.

Dandruff—A dandruff remedy that has been tried and found most successful in numerous cases is: 60 grains of sulphur mixed with 1 ounce of vaseline and applied every other night to the scalp with massage.

Powders—1.— Rose Perfumed Powder.—5 parts finest rice powder; 1 part oil of sandalwood; 1 part oil of rose. Mix ingredients, and if a pink tint is desired, add a small amount of the best carmine.

2. Face powder—Talcum powder, 15 ounces; starch 1½ ounces; orris root, 1½ ounces; oil of bergamot, 12 drops.

DIVISION SIXTEEN.

HOW TO SELECT A MATRIMONIAL PARTNER.

Perhaps no more important question can be raised by man or woman, who has arrived at a suitable age to enter upon the rights, duties, and responsibilities of married life, than the above.

To whom shall the young man or young lady apply for advice and counsel on this all important theme? They have some conception of the importance of the step; they recognize that to found a home, to transmit to posterity an image of themselves, to rear a brood of children and, so far as may be, to mould their characters and destinies for good, is a work of the highest significance, and who shall share with them this relationship and function is the question of questions.

Parental Advice.—It would seem only natural that the young should look to their parents for help and guidance in the matter, and what help parents can give is no doubt cheerfully given; but its value must depend upon the knowledge possessed by parents, and upon their ability to give disinterested advice. They have seen more of life and studied people more than their children.

The views herein presented on the subject of marriage vary from those commonly held, but, notwithstanding, they will be found invaluable both to parents and children.

There is such a faith in the overruling Providence of God as shall guide in answer to prayer in this matter, as in all others of human life, that will be adopted by many as the only safe protection against error.

Such persons deem their ignorance on all the many ramifications of the question a sufficient reason for passivity

and say that, as a good wife or a good husband is the best gift that God can bestow, they will carefully watch the indications of His guidance and distrust their own judgment in favor of one bearing the tokens of being one sent from God.

Intuition.—There are others who, having simply determined that the one on whom they will bestow themselves shall be of suitable age, social standing, education and health, wait for that *intuition* that shall dawn upon them when in the presence of the affinity. They must feel, as a friend once said, "that jump of the heart" that was to him nature's infallible guide.

We shall not ridicule or quarrel with any opinions honestly entertained upon the subject, but will call attention to the fact that there is claimed for phrenology, joined with physiognomy, advantages possessed by no other theory bearing on this interesting question.

The Theory of Phrenology.—The theory underlying phrenology is that the real spiritual personalty, in clothing itself with a material covering for its temporal sojourn in this material world, has stamped its quality upon the body generally, and upon the covering of the brain specifically; that the appearance in general, and in particular of the head of man, gives an unerring guide to the inherent nature of the individual.

It claims, by long continued observation, to have acquired such a knowledge of these cranial protuberances and depressions as to grade them with exactness as to their location and degree or size, so that they may be read with accuracy by one schooled in the study.

If we need any apology for here introducing what phrenology has to say on the question, it is that nowhere else do we find any coherent teaching bearing upon it, and that, so far as we have examined the subject, phrenology has some strong points in its favor.

WHOM TO MARRY OR NOT TO MARRY.

One of the greatest causes of unhappiness, nay, misery, in the world, is the steady adherence to the superstition that two young people who feel, when in each other's company, the sexual excitement that is so often mistaken for love, must marry. It is folly for which thousands upon thousands are constantly paying a most fearful price. Love! Why, love means self sacrifice. It means wisdom. Many a man for love has remained a bachelor all his life.

Nature has decreed that certain dispositions will antagonize certain other dispositions. Marriage is often so hasty that these faulty dispositions are not discovered until after marriage, when it is too late to retreat, no matter how much it may be desired.

The following simple rules should be carefully studied and kept in mind.

1st. Two people of similar complexion and temperament should never marry. If they do it will prove a failure.

2nd. Two tall, slim people or two short, heavy-set people should not marry.

3rd. A nervous, fidgety person should never marry another nervous person.

4th. A man should never marry a woman who is given to finding fault, or who is peevish and "cranky," or who scolds her little brothers and sisters.

5th. A woman should never marry a man who is naturally inclined to be arrogant and cruel, or who is inordinately selfish.

6th. A man should never marry a woman who is so proud that she keeps her parents poor dressing and providing for her. Beauty never atones for pride.

7th. A man should never marry a woman who is "touchy" or fickle in her friendship, or often at "outs" with her parents. Depend upon it these characteristics are due to a serious fault in her nature which, after marriage, will reappear in her own home to make it miserable.

CHARACTERISTICS THAT ARE FATAL TO FUTURE HAPPINESS.

Some young men act very foolish in choosing a companion for life. They are apt to mistake a physical passion for love, and marry a girl who can never be a mate, because nature has decreed otherwise. Some think they fall in love with hair, or with eyes, or with dimples, or with a pretty figure. Temperament cuts a vastly greater figure than face. A pretty face with peevish or selfish temper is like a fair-skinned apple that is wormy or rotten within.

Don't marry a girl whose chief aim in life is dress; who hangs around dry goods or millinery stores like butterflies around a gorgeous flower.

To dress extravagantly is a blot upon any woman's character. When the activity of the mind is taken up with finery the soul grows pinched and lean, the mind fails to develop, and such a woman cannot make a decent partner for any sensible man.

So, too, should no girl think of accepting any young man for a lover

who is addicted to the use of liquor, or who spends his money in speculation or in fast living. Shun such as you would an idiot or a fool. They will invariably prove worthless husbands, and to think that you can reform them is so much like playing with fire that we must quote old man Weller's advice to his son:

"Samivel—don't."

As it is to-day, in five homes out of six, domestic infelicity exists merely because before marriage these fundamental points or elements necessary to continued affection and happiness were disregarded.

LOOK BEFORE YOU LEAP INTO THE SEA OF MATRIMONY.

To select the characteristics that cause future trouble, while courting one need only watch with some care how his intended treats her family and friends. If she is cross to the dog, and the cat is afraid of her, have a care; some day you may find yourself leading a dog's life. Observe her conduct when she does not know you are observing her, and judge her by the characteristics you thus discover.

To live as happily and continue as affectionate after marriage as before is worth a little sacrifice, and it requires but very little sacrifice if you go about it the right way. First, of course, you must continue true to one another, but the secret will generally be found in one of two things. The most important of these is the keeping alive and at its best the sexual desires. This is the highest part of your nature and should be held sacred. Constant or uninterrupted indulgence is sure to destroy its enjoyment and destroy happiness for both.

The animals enforce periods of abstinence by instinct. Man has sense instead of instinct, and if he fails to use his intelligence he suffers. It is absolutely necessary, if you retain affection, to separate indulgence with long periods of abstinence. It is on this rock that more domestic happiness is ruined than on any other. And while it may seem at first to be a sacrifice you will soon learn that it is instead a means of adding exquisite pleasure to both your lives that you were formerly strangers to.

LITTLE ACTS THAT WAKEN THE SMOULDERING FLAMES OF LOVE.

Another important secret is in retaining all along the trifling acts of tenderness. Young man, squeeze your wife's hand now and then after marriage just as you did while courting, and look your wife in the eye as you did then. And wife, pet your husband now and then; think to do it. These may be trifles which many married folks will pooh-pooh as beneath their dignity, but we have always found that such people missed domestic happiness while the others retained it. Put away that selfish unhappiness and begin to attend to these little acts of affection, and if you continue it honestly for a little while you will be wonderfully surprised at the prompt response. It will repay a thousand fold for the effort.

HOW TO MAKE DOMESTIC HAPPINESS CONTINUOUS

The glamour of youth pictures for love an eternal paradise of happiness in the association of the two who love each other. True, thus it should be, and in many instances it is so. In the majority of families, however, domestic happiness all too soon disappears. It is therefore of the utmost importance for the youthful couple that the rules which govern harmony be understood and lived up to.

WHEN PASSION SHOULD BE CURBED.

A man must not let his passion become selfish, and demand what a woman cannot and should not give. The man must bear in mind that while he is always passionate a woman's constitution differs and can properly meet him only periodically. For a man to demand more, or not to respect at all times the wife's nature in this respect, is to cause her to feel loathing toward him in spite of herself. The wife, on the other hand, should also recognize the reasonable need of her husband's natural desires, and while restraining indulgence with proper periods of rest, which vary according to conditions, from two weeks to two months, or longer, should not be niggardly. During pregnancy, with the possible exception of the last month, no true man will ever think of such indulgence. Mutual respect and affection are often sacrificed at this time by the husband's unreasonable demands.

WHEN SEPARATE APARTMENTS ARE NECESSARY.

A terrible strain upon the continued attraction of one for the other is the constant occupation of the same apartments. Few indeed can stand this. Young man, if you want your wife to be as attractive in your sight and as loving toward you all the time after marriage as before, see to it that you occupy separate apartments most of the time. It always pays richly for all that it costs in the way of temporary sacrifice.

Mutual forbearance with the special peculiarities of temper or preference is essential. The greatest obstacle to harmony is selfishness. If one will only think first of the happiness of the other under all circumstances, he will get more, enjoy more and live more than he ever can by trying to enforce his own way.

MONEY MATTERS A SOURCE OF UNHAPPINESS.

Money matters are the source of much discord and grief to both husband and wife. Man and wife are partners and are entitled to one-half of the common fund and no more. There is no sense in the woman begging for a little money from her husband, emphasizing thus her dependence upon his pleasure. While she is bearing children she is entitled to good pay for her services. Otherwise she should be independent of the man's liberality or stinginess, as the case may be, and earn her own money to spend for her own uses. There are a hundred ways in which she can do this, and the sense of independence that follows repays her for whatever social sacrifice it may entail.

DRESS A SOURCE OF HAPPINESS OR UNHAPPINESS.

Many otherwise happy families have been broken up through the wife's thoughtless extravagance in the matter of dress. In thousands of families, comparatively poor, the husband buys few clothes, in fact goes shabby, and buys only cheap garments; partly because his wife insists upon wearing showy gowns and bonnets beyond the family resources, sensibly utilized. It is sense to dress well—as well as your purse can afford, but it is nonsense and folly to go beyond that, just because some neighbor can afford a little more.

LECTURE TO GIRLS.

BY PROF. L. A. STANDISH, OF NEW YORK.

REWARDS OF VIRTUE.

If children were always born under perfect conditions and with a proper inheritance on both sides of the family for many generations back, and further, if the early environments were always what they should be, children when they grow up would be inclined to do only what is right and proper. But we all know there is not one in ten thousand that is so marvelously fortunate. Neither the parents nor the children have any control over the influence of heredity, nor have they control over the early environments. Therefore it is that children as they grow up are so often inclined to yield to temptation and depart from the paths along which, and only along which, real happiness can be found.

There is no more awful hell of suffering on earth than the pangs of remorse from which you can never escape for one instant, while on the other hand, there is no joy so constant and so exhilarating as is the sense of satisfaction—of pleasure that comes from a clear conscience. Besides, all who have had experience, no matter what their age, will unite and do unite in declaring that a great amount of misery always follows a small amount of pleasure secured through forbidden paths.

The old saying that "virtue is its own reward" would be more nearly true if changed to "virtue brings its own reward." What, after all, is the greatest boon that can come to any one? Wealth? No. Fame? No. Pleasure? No. It is none of these. It is the good opinion of our fellows. The love of those with whom we associate. If we have that it gives us more pleasure, more real happiness than all else put together. Then is it not the part of wisdom to seek, to desire, to so order our lives, to so conduct ourselves, as to gain this good opinion of others—this love of our immediate companions?

And believe me, girls and boys, too, for that matter, there never yet in all the world's history, has been found one single instance where this-thing-so-much-to-be-desired was obtained through a departure from the ways of virtue and rectitude. You yourself cannot, if you try, love for any great length of time a companion who is mean or who cheats or who sells any part of his or her character for temporary pleas-

PROF. L. H. STANDISH.

LECTURE TO GIRLS.

On rewards of virtue.
On waywardness—evils that beset the wayward.
On the first wrong step.
On bitter toils of fallen life.

J. G. HOLLAND.

LECTURE TO BOYS AND YOUNG MEN.

On the rewards of honesty.
On the advantage of truth and veracity.
On how to determine a suitable occupation.
On evil effects of intemperance and profanity.
On injurious results from the use of tobacco.
On industry and economy the highway to wealth and fame.

are. You cannot do it. It is contrary to the laws of nature, which are the laws of God. But on the other hand it is easy to love an acquaintance whom we learn to feel we can trust perfectly ; we know that they will always do what is right in all times of trial—we say that we know it simply because we feel it, and we *feel* it simply because the other party by really *being* so *in her heart* causes th feeling. This is indeed one of the clearest examples of instinct among human beings. The feeling never comes and never stays unless the other party is really *true at heart.* You see God has made it a law of our bein ; that all the best things—the things everybody agrees on as being the most desirable things—come as a reward of virtue.

WAYWARDNESS.

Above Niagara there is a portion of the river where the water seems as smooth as glass. On a warm summer evening one is tempted to drop the oars and let the boat drift as it will. Danger would never enter the mind of any unwary voyager who had had n experience of the angry waters below. But any one thus drifting is likely to hear a voice from the shore.

"Boat ahoy! Aho-o-y!"

"What is it?"

"The rapids are below you. Pull for the shore!" And woe betide the fool hardy ones who heed not the friendly call. For though the water is so calm and the boat seems to lie so still it is slowly but surely being sucked by the undertow toward the rapids. Once upon these and his pulling is in vain. His doom is sealed.

How very like this is the fate of the young girl, who, to gratify a longing for excitement perhaps, or out of pure abandon, neglects the good advice of her mother and allows herself to float upon the giddy stream of error. She is not bad, would not be for the world. The mere suggestion of a shameful act would cause her anger. Never would she be guilty of that, "Only a little wayward," say her friends. Ah; could she only see the future and catch a glimpse of the pitfalls and the mire that lay a little further on along the path she is pursuing, how quickly she would stop. But she is drifting toward the Niagara where so many thousand every year made shipwreck of their young pure lives.

THE FIRST WRONG STEP.

It is so like youth to say, "Oh, pshaw! I'll quit in time enough! Don't you fear for me! I'm just having a little fun, but I shan't run into danger. I'm all right!" etc. If it were only so. Innocent and trusting youth! She knows not that the tempter will always take her unawares and she will never *never* recognize him till it is too late. Would it were otherwise. But so it has been since mother Eve dwelt in the garden and will always be till the millenium. The only time that you can safely stop is before you take the first step. It is easy then to say no and to fall back upon your native purity and pray, "God keep me beautiful within."

After the first wrong step the next is so much more natural. It does not seem so bad after all. There is no use in mamma being so strict anyhow. Well you are on the glassy still water just above the rapids now. How long will it be till your boat strikes the rapids? That no one can say. It may be years, it may be months, it may be only days. But when you are caught, God pity you.

BITTER TOILS OF FALLEN LIFE.

The writer once knew a beautiful woman—when he first met her she accidentally ran against him on a lonely walk on the river bank of a Missouri town. She was beautitul, in face and form, but an oath escaped her lips in reply to the "pardon me"—she was only 23. A year later in a tent on the banks of the same river he saw her die in pain from the effects of a loathsome disease contracted amid the shame that our cities license and permit. He had tried before, in vain, tc help her forsake her fallen course. Now she was thankful to receive one kind word. She had been the petted favorite of the haunts of vice, now forsaken by all, and to me, a stranger, on her deathbed she told what a hell had been in her heart during all the time. Scarcely a moment's animal pleasure, but what was haunted by a mental woe within. And oh the heartaches when by herself alone. "And then" she said, her voice broken by sobs, "it was torture all the way. As a girl I was a little wayward—I liked to have a good time—I went with him some—he was such a nice boy, so were some of the others and we were only having a good time—of course, mother tried to stop it all and finally I ran away—I can't—I can't tell it—I'm too weak—it didn't come out as I expected—it's all misery." And with the cry "I'm lost" she died.

It is fortunate for the world that the maker of us all has put in our hearts a little monitor whom we can never escape. We can sometimes escape from foes and run to friends, but our own consciousness becomes a foe when we have done wrong and we cannot escape from it.

LECTURE TO BOYS AND YOUNG MEN.

BY J. G. HOLLAND

Many years ago P. T. Barnum, the noted showman, traveled throughout the United States giving lectures on "Success in Life and How to Make Money." In the course of these lectures he emphasized the three great essentials to a young man starting in life as *vocation*, *location* and *honesty*. Ability was an advantage, but he declared, and the declaration is proven by experience, that boys lacking any marked ability but following along the lines suggested, won far greater success, than brilliant, smart boys who followed their inclinations, or were induced to go in paths contrary to the teachings of experience.

REWARDS OF HONESTY.

A ragged newsboy in Chicago whose route lay along Wabash avenue, was handed a dime one evening for his paper. He had no change, but

the man wanted the paper. "I'll git ye the charge, Mister," he said. "All right," said the customer, as he went back into the parlor. But when half an hour later no change had been brought he gave up his confidence in that boy's honesty. But just as he was about to retire, nearly ten o'clock, there came a ring at the door-bell. Going to the door he found a diminutive youngster who held up a little hand with nine pennies in it and a piping voice said: "Here, Mister, is yer change. Bob he got run over by de cars, and dey bring him home in der perlice wagon, and he say he was bringing de man his change, and he could not rest and could not stand it till de money was brung, so I brung it." The gentleman took the change and asked the boy's address. Next day, calling at the dingy back rooms where the little fellow said he lived, he found the boy to whom he had given the dime lying in his little cheap bed, out of his head, and moaning now and then, "Tim, Tim, you must git the change for the man; I said I would, and he'll think I stole it." The gentleman learned that the boy, while on the way back to return the change, was run down by a car unnoticed and found a little later by a policeman. The gentleman sent his own physician to attend the boy, who finally recovered, and after that paid his poor widowed mother enough to enable her to keep the boy in school and start him in an honorable business career.

We put honesty first, because it is more important than any other one thing in order to get on in the world. Too much has been said about shrewd traffic—about getting the better of your fellows. But there is nothing that stands more in the way of winning success in life than the meanness that comes from dishonest practices—and by dishonest practices we mean not alone taking something that don't belong to you—violating the law of the land—but any act of unfairness toward others. It is just as dishonest to fail to give what you know you ought to give as it is to steal. It is just as dishonest to live beyond your means, or to speculate with borrowed money, or to keep what you find and can find an owner for, as it is to break into a house and rob; and every dishonest act will make a smaller man of you, less capable, less thought of, less free. There is no misery on earth so painful or so impossible to get away from as a tortured conscience. Money can buy lots of things, but it can never buy happiness, never buy a clear conscience, never can buy that gloriously independent and free feeling that comes from one's own inner satisfaction.

"And this above all, to thine own self be true,
"And it must follow as the night the day
"Thou can'st not then be false to any man."

ADVANTAGES OF TRUTH AND VERACITY.

If you never tell a lie you cannot be dishonest, for the first time you steal an apple or a penny or fail to return what you know belongs to some one else you tell a lie to your own soul and you act a lie by keeping the thing "sneaked," even though nobody knows about it but yourself and one other. There is always one other knows besides yourself —God knows and you know. Gladstone, when a boy, once took a

thrashing from two older and bigger boys because he would not go to a neighbor and tell him a false story which the bigger boys told him to tell. He afterwards found out that if he had told that false story he would have received two whippings—one from the neighbor and one from his father when he found it out. It always pays to tell the truth.

HOW TO CHOOSE VOCATION AND LOCATION.

One of the most important things for a young man about to start in life is his choice of a trade or a profession or a line of work that he intends to make distinctly his own. The thousands of wrecks and failures in life are mostly, if not altogether, due to neglect upon this matter in youth. They simply drifted along, taking up whatever presented itself, and consequently soon found themselves in a business that they were not fitted for and disaster followed as a matter of course.

Every one is best fitted for some special sphere in life. Early inclination or aptitude is usually the best guide, and that parents should look for in their children and cultivate. Above all they should not go contrary to the apparent wishes of the child in order to have the child take up some pet vocation which the parents have set their hearts upon his following. Nature points the way in almost all cases, perhaps in all cases if we give heed to her still, small voice.

The same thing may be said regarding location. One thrives best where he is best pleased. If the location is distasteful it is usually better to seek one more in accordance with one's natural preference.

EVIL EFFECTS OF INTEMPERANCE AND PROFANITY.

Fun and hilarity are as natural as life. And it is right and proper to seek and enjoy them. But no one puts a greater stumbling block in his path than he who begins to form a habit of swearing or of drinking liquors. To see a drunkard or to hear a profane man for the first time is enough to fill any one with disgust. What sense then is there in any boy or young man beginning to do the things that after awhile will cause those who see them to feel disgust for them? And worse yet, it is not long before you begin to feel disgust for yourself, and you can't get away from your own company.

Swearing don't help anything. It neither makes "one hair white nor black." It weakens every expression to which it is added. It is simply and purely a habit caught by contagion, like small-pox, and cultivated by practice till it deforms the person habituated to it and injures his chances in every career in life from the humblest to the highest. Do not begin to swear, or if you have already begun, quit. That shows sense and ability. It is only very weak persons who can't or won't quit. So, too, with drinking and all other forms of intemperance. Young man, do not take the first step to intemperance in speech, or deed, or thought. Or if you have already done so, stop now—now, when the call comes to you. Now is *always the best time.*

TOBACCO HABIT.

Do you know of anything more filthy and more useless than the chewing and the smoking of tobacco? Just think of making chimneys

of your mouths and spitting smoke into other people's faces. Or to make a sewer of your mouth and chew and spit the vile brown juice from the wads made of the leaf of the weed, that no animal will eat, and known as the tobacco plant. Worse yet, when you know of the nasty way it is soaked and prepared and packed into, not over clean boxes, and handled by scores of dirty hands before it enters your mouth. It is a prolific source of dyspepsia. Smoking especially produces all kinds of nervous disorders, is one of the large causes of insanity and of kidney disease as well as of rheumatism and neuralgia. The nicotine contained in the poisonous weed is dangerous to health even when taken in minute quantities. The use of tobacco is one of the chief links that still bind the race to its ancestry of barbarism. It will never stand the advance of civilization. Let it severely alone.

INDUSTRY AND ECONOMY THE HIGHWAY TO WEALTH AND FAME.

What is it you want? Not now, but in your sober moments, when you think it over. A good time now—a little indulgence now and poverty and discontent for the rest of your life, or a little self-denial now, and years of pleasure after?

As sure as fate it may be stated that the only highway to wealth and fame is economy coupled with industry. The world is full of examples of brilliant, bright boys, who became poor, wretched, ruined men, while their ungifted brothers or neighbors have won ease and comfort or fame and riches. How was it done? Simply by the practice of economy in youth or before they had won independence and all along persistent industry. There is no royal road to fame or wealth. It is a universal experience that the path to success means tireless industry and the cutting off of the little leaks in resources that swamps so many every year.

Read over and over again the suggestions we have given. Abide by them and you will succeed. Disregard them and you will be sure to sink, perhaps to find a life of degradation and poverty. A life is not accident. Things do not "happen." As a man soweth so shall he reap. And if he sows nothing he will reap only the whirlwind.

ADVICE TO CHILDREN AND YOUNG PEOPLE.

BY HARRIET BEECHER STOWE.

On Obedience and Gratitude to Parents.—"Children, obey your parents," used to be the injunction forced upon us in our childhood days, but which in these times is falling into disregard. Children, almost as soon as they reach a school age, begin to do things contrary to the wishes of their parents and, unfortunately, too many parents are negligent about teaching the young in early life the value of obedience. The child, incapable of perceiving that the motive of parental restraint is the child's future happiness and welfare, thinks it is the suffering victim of the parent's power.

But it must not be forgotten that from birth to death we are all subject to higher law, and almost all our evils and our suffering in life come through disobedience. This entire nation, almost, suffers from dyspepsia, because in early life they had failed to learn to obey the laws of health in their eating and drinking. Government is possible only by having laws and by obedience to those laws. All success in business is made possible only by having some in control and all the rest obedient to the instructions given. Armies win battles only by the absolute blind obedience of the soldier to his commander. In fact, the necessity for obedience is apparent in every avenue and condition of life.

Success Won Through Obedience.—How absolutely necessary it is, then, that the young should have it impressed upon their minds, early, that obedience to rightful authority is their first and most imperative duty. Their chances for success and happiness in life depend very largely upon how well this lesson has been learned. In order to know how to command you must first learn to obey. The only true and natural place to learn this lesson is in the home. By yielding strict obedience to their parents, who are rightly set in authority over them, children learn to obey the laws of God, of nature, of their country, of society, of business, and by so doing can win success and happiness.

Evil Consequences of Ingratitude.—On the other hand, when a child disobeys its parents and becomes ungrateful for what they have done for him, it is not uncommon for the parent to disinherit such a child. Who does not know of Mr. George M. Pullman, the founder of the Pullman Palace Car Company, and his disobedient sons? Had it not been for others these ungrateful sons would have received comparatively nothing of their father's great wealth. And this is only one instance among thousands where children lose fortunes as the result of disobedience.

No words of condemnation can be too strong to characterize the base ingratitude shown by some children. After the parents have reared them, sent them to school, cared for them in health and in sickness, they turn about, and, forgetting all they owe, so shamefully treat their parents as to hasten them to the grave in sorrow and grey hairs.

It is a lamentable fact that the world is full of ingrates. It seems only too true what one aged grief-stricken parent said: It seems to be the rule that the more parents do for and sacrifice for their children the less gratitude they receive for it. After a whole life of labor and sacrifice, their last days are made infinitely worse than the first days of struggle by the sad ingratitude of their children.

How Parents Teach Their Children to Lie—I wonder if parents ever stop to consider that if even only once they threaten a child with punishment and ask for a promise "not to do so again" they are teaching that child to lie. It may sound harsh yet if they will stop to think, they can hardly expect any other result.

The young are impressionable, and easily led into right ways and still easier into the wrong ways, and it is the most natural thing in the world for a child to deny the truth if thereby it thinks to escape punishment. Scolding and whipping are both relics of barbarism. You can lead your child infinitely farther and much easier by love than with a whip or with sharp words and clouded brow.

Take Your Child to Church—The greatest uplifting influence in civilized life is the church and cold and cheerless indeed is the churchless community. Even the one who does not go to church feels the effect of its influence and receives the benefits that come from its presence. Its good offices reach out in countless ways and directions embracing the community in an atmosphere of unselfishness and morality.

We must develop in our children a love of morality for its own sake rather than righteousness based upon fear of the consequences of immorality.

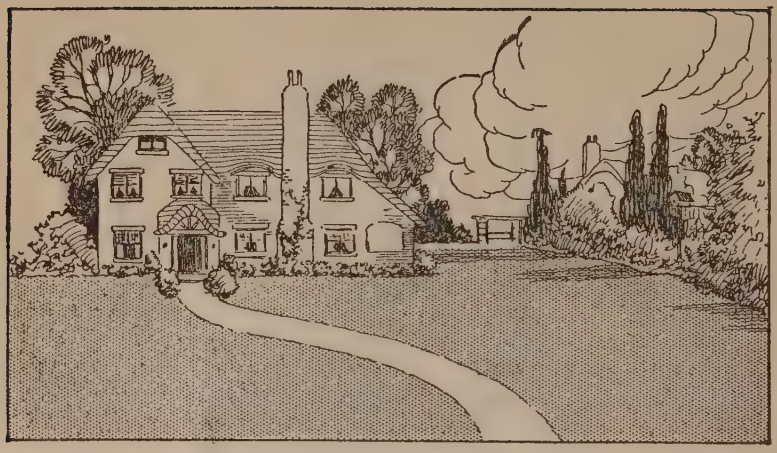
Mere laws cannot create morality; force does not create righteousness. These qualities come from within, from the soul and from the enlightened mind.

JOHN BLAKE'S HISTORIC OLD LIME KILN (North Carolina).

Lime is a safe, simple and effectual cure for Membranous Croup.

It was long a common belief in the old Pine Tree State that no child could die with Membranous Croup if treated with lime from John Blake's lime kiln, and from far and near people would send for this lime for that purpose. Later, it was found that lime from any other kiln was equally as good.

French Cure for Membranous Croup. Dr. J. R. DaCosta writes: "In our hospitals strong vinegar and salt has proved to be the most certain cure for membranous croup. I have cured the very worst cases with it, even patients over 50 years of age."



HEALTHFUL RESIDENCE

DIVISION SEVENTEEN.

HOME.

BY C. D. M. CAMPBELL.

This is one of the most common words which we all understand, perhaps, after our several fashions, but which none is able precisely to define. It would seem to mean one thing to one man, and something quite different to another, very much according to the capacity, culture and disposition of each. Our ideas of home are somewhat like our ideas of God. The Great Spirit of the savage does certainly not much resemble the God of the enlightened Christian. Many of the attributes of these beings are just the opposites of each other. But, behind the crude or imperfect notions of each there might, perhaps, be discovered a Divine Reality, if one were only wise and great enough to find it. So, though men differ widely in their conceptions of what constitutes a home, there may possibly be some common elements, apparent to the eye of a close and exclusive analysis, in which all would agree, and which must therefore constitute the real and only essentials of that substantial thing which all men quickly recognize, but upon all the conditions of which so few are entirely agreed.

ITS INDEFINABLE CHARM.

It would further seem that, among these essential elements of home, and perhaps first among them, is a nameless if not wholly indescribable charm. This is like the fragrance of an odoriferous shrub or flower, which proclaims its neighborhood through miles of distance, and is strongest in the silence and darkness of the night. Something like this is the charm of home. The heart scents it from afar, when the eye cannot behold it, and gloats on the ideal picture of its beauties amidst the silence of solitude and the blackness of actual desolation. Hence, none have written more eloquently upon the charms of home than the homeless. The author of "Home, sweet home," was a wanderer and an exile, and sang but the passionate picture of his own sad and lonely heart. Rest, peace, love, friendship, joy—these, and much more which we cannot name or characterize, are the constituents of that wonderful charm which dwells in the word Home. These are the breath of

its fragrance and the odor of its thought. These, with the simple utterance of the name, let into the heart, as through an open window, the light of beauty and the atmosphere of purity, and it is these that render a home, whether real or fancied, "the dearest spot on earth" to every man.

THE COMMON IDEAL.

The influence of this most wonderful and sacred of all institutions is, in its nature, purely centripetal, or attractive; it is the gravitating force which restrains humanity from wide and lawless wandering, and it operates in two directions; it pulls forward and it drags backward; it incites to build, and it acts to restrain. Its antitype is in the heart of every good man and woman. It is an ideal picture, which all feel that they must somehow place upon the canvas of their lives; an imaginative structure, which they must build at the cost of all their earthly possessions, or life itself will be destitute of meaning and of end. To this, they are naturally and irresistibly drawn. This is the meaning of labor, of enterprise, of thought, and of all the passionate attachments of the heart. The visions of the youth, and the dreams of the maiden have this common interpretation. The apparently mysterious forces of sexual, kindred and social attachments and aversions find here their clear solution, and draw hence all their spring and energy. Love and hate, friendship and dislike, coldness and indifference, the realities of time, and even the visions of eternity, are inspired by this passionate longing for home. It is just because this longing is so seldom satisfied, this vision so rarely realized; because the actual experience of home has disappointed by its imperfectness and pained by its discords; it is because of this that men and women, despairing of their ideals in this world, have looked to realize them in another and better, and so come to think that the disappointments of earth may be atoned for by the fruitions of heaven. It is thus seen that the design of all theology, and even of all religion, is the realization of this common desire for a perfect home, hell itself being but the everlasting limbo to which the revengeful heart consigns the enemies and disturbers of its domestic peace.

ITS RESTRAINING INFLUENCES.

Imperfect, however, as is the home of earth, and far as it commonly falls short of realizing the ideal of youth and maturity, yet, once built, according to man's best, it throws around him an indissoluble chain. To maintain it in being and add to its attractions, becomes now the one purpose of his life and labor. For this, he toils by day and watches by night. In the field, the shop, the office, the laboratory, the library, the forum—everywhere—the worker works for home. Allured to the paths of adventure, vice or crime, he is held back by the tie of home. Driven to despair by want or

woe, and longing for the rest of the grave, the rash hand of the suicide in thought is paralyzed by the memories of home. Frantic with rage or bitter with revenge, the thought of direful consequences to those he loves curbs the wrath which might wreak itself in blood. If he is a good citizen—the conservator of those moral influences which hold society within the bounds of order and decorum—all this is due to the domestic stake he must venture for the gratification of an illegal avarice or illicit lust. In short, the factors of every enduring social state and the constituents of every permanent and advancing civilization, lie in the homes they embrace and of whose tender energies they are the crystallized expression. If there be virtue, honor, worth, purity and peace on earth, they were born in its homes and will perish with their extinction.

THE INTEGRITY OF HOME—THE SAFE-GUARD OF NATIONAL STABILITY.

The convulsions which occasionally shake society to its national centres and threaten the overthrow of all the institutions which Time has consecrated, issue from those apparently sudden and cyclic changes which periodically occur in the domestic temperature of the world. When at any period in the history of a nation, love becomes a jest, friendship a myth and honor a name; when the night of Despotism has settled down clear and cold and drear, extinguishing those fires of purity and trust which burned upon the hearth of home; then the wild ruffianism of the individual man breaks forth in anarchy and blood. As it was with France in '89, so will it be with every nationality on the earth; when the state, by its arbitrary social distinctions and unequal laws, invades and tramples upon the sacredness of home, it simply takes its own life; because the state is the product of its homes and has unnaturally destroyed those factors of which its dignity, grandeur and authority were the mere multiple. When the state becomes paternal in its government; when it undertakes to educate or to regulate, in any other interest than the conservation of the public peace, the children of its citizens, then it usurps the highest and dearest prerogative of the royalty of home, and it will, in time, snatch all the others; and then, indeed, it will have committed national suicide, for society will dissolve and go back to its original elements. The Spirit of Progress, so-called, who now stands embracing the pillars of the temple of our National Freedom, is the Blind Sampson, whose strength is coming fast, and who will soon bow himself to bury all in a common ruin.

THE FIRST CONDITIONS OF HOME.

Such, then, being the influence and effects of the home, it may be well, if possible, that we should form some distinct conception of its essential conditions.

The first of these is, obviously, the presence of one man and one woman, who have mutually chosen each other out of all the world, and who are held together by the same attraction of mutual and exclusive choice. This it is that makes true marriage; and those, and those only, who are thus wedded are true husbands and true wives. They may be of any faith, or of no faith. The ceremony which united them may be gorgeous and elaborate as that of Rome, or simple and natural as that of an untaught savage. The essential thing is, that they love and prefer each other to all the world. This being granted, they are the common centre of the circle of home. They make its earliest constituent, and its prime and essential condition. Without this, there may be much that is charming and bright, but there is no home. Indeed, whatever of brightness or of charm may be discerned in those broken circles to which this element is wanting, will be found, on a careful examination, to owe their presence to the sacred memory and still potent influence of this primal fact. If the children cling to the old roof-tree, under whose shelter sits the lonely and widowed husband or wife, it is because the vacant place was once so honorably and tenderly filled that the simple recollection of the lost has still the power to charm and bind. It is a power so enduring and sacred that death itself cannot quite cancel it. This, then—the presence of one man and one woman, joined together in a tender and sacred union of hearts—makes the earliest element of the real home.

CONSECRATED BY TIES OF PARENTAGE.

The next—and the immediate and proper consequence of this—is the presence of parents and children. When the loving wife ripens into maternity under the chaste and tender influence of her husband's embraces, she is not only fulfilling the ends of Nature and the law of God, but she is adding another and equally essential constituent to the home. Indeed she is helping, as in no other way so efficiently she can help, to build the home. Not all the domestic virtues combined can atone for the barrenness. This is the greatest of all misfortunes. Until her babe smiles in its mother's face and coos in its father's arms, their common being is incomplete. Strange and awful depths of tenderness are unsealed by the presence of the little one, whose waters could never else have purified and gladdened the hearts of the husband and wife. Holding this treasure in their arms, they taste a divine joy and unlearn the hardened selfishness of life. Their union is now first complete. They are not merely husband and wife, but the common parents of that bud of being which they see unfolding under their eyes; and this fact invests either with a new and unspeakable dearness to the other. It is no longer John and Jane, that each sees in the other, but the father and mother of my boy; and both feel that the mutual tenderness of wedded love bore no comparison to the mutual tenderness of wedded parentage.

And besides this, the birth of the little stranger has, in some new and mysterious way, made them akin to all humanity. The childhood of the world has crept into their bosoms and made its home there. They love all children for their own child's sake. Even the beggar's brat, which they were wont to pass with disgusted feelings and averted eyes, seems now to be invested with a new and inexplicable charm. Their eyes have been somehow unsealed, so that they can look through the dirt and rags down to the angel nature which they hide.

SACRED DUTY OF MOTHERHOOD.

It seems hardly conceivable that any wife could be willing to forego this divine joy of motherhood and this sacred duty of home-building, for the unnatural claims and doubtful pleasures of fashionable society; yet such wives we are assured there are, and not a few. In the larger towns and cities—the so-called centres of civilization—it is said that, with many society-ladies, motherhood is dreaded as a curse and prevented by crime. Undoubtedly, so far as they are concerned, the sin brings its own punishment, and the punishment is sufficiently severe. It makes no difference, that they are for the present unconscious and dreadless of that harvest of woe whose seeds their jeweled hands are sowing every day. It will come soon and fast enough. In broken health and blighted life—in loneliness and lovelessness—they will realize, at last, that they are reaping as they have sown. But the crime against society—the sin against government and race—the infidelity to marriage vows and obligations—the putting out of the light of a home—the blighting of human possibilities of greatness and worth—the destruction of a factor in the purity of society and the strength of a state, what personal suffering of the wretched criminal can atone for this? During an eternity of misery—could she suffer it—this sin would grow blacker by all the smoke of her torment, and greater with every groan of her anguish. The sufferings of the sinner cannot undo the sin; albeit, it is ordained, by the organic law of our being, that the sinner shall suffer. We see, however, still more distinctly, by the lurid light of such a crime against nature and society, how essential is that second condition of home, which we have named as the relation of parents and children.

HOME AN ABIDING PLACE.

Another of those essential constituents of home whose importance it would be difficult to exaggerate, is a dwelling-place. This, if possible, should be the inalienable possession of its occupants. Let it be altered, improved, amended, if they will and can, but never, save under the stress of urgent necessity, abandoned. The local attachments of our nature are strong and ineradicable. The popular proverb, "A rolling stone gathers no moss," is fairly appli-

cable not alone to material possessions, but to those higher acquisitions which enrich the understanding and the heart. These are rubbed away and lost by the sharp attritions of local change, until one becomes a mere human boulder, the mechanical result of the circumstances which have swept, tossed, and washed him hither and thither, and left him lying helpless and supine, at the mercy of every elemental and impulsive force. The steady and unchanged homestead, on the other hand, is the soil in which the dwellers are infixed like the strong rocks, which laugh at the storms of life, and successfully resist all violent and injurious change.

HALLOWED BY ASSOCIATIONS.

In process of time, there are transferred to such a spot and made a part of it, innumerable associations, joyful or sad, but all alike tender and endearing. The graves of forefathers and mothers, the home-coming of brides, the departure of sons and daughters, the birth and death of children—all have left their traces on house and furniture and soil. These dumb, material things are eloquent of all the interests and emotions of the home circle. They bind its members to the spot, or force them, if they wander,

"To drag, with every step, a lengthening chain."

Years afterward, indeed, when the family is extinct or scattered; when the fences are fallen down, the hearth-stone cold and the house a battered ruin; the footstep of a lonely stranger, treading there, is repelled by unseen forces, and something says,

"As plain as whisper in the ear,
The place is haunted."

Haunted, indeed and forever, it is, by the undying ghosts of the passionate hearts that once dwelt and revelled there.

So strong, so enduring, so imperishable is the influence of a dwelling place. No doubt, some cannot have it. It is out of their power to purchase and own their own dwellings. The necessity of their pecuniary circumstances or local surroundings forces them to rent and occupy, on such terms as they may, the hired tenements of others. This is especially true of the working classes in the cities. But even they may shun, as much as possible, removals from house to house. They may select a modest dwelling, at a price so distantly removed from the outer margin of their means as to promise permanence of occupancy if they so choose, and stay there; and this will prove, in time, a tolerable substitute for ownership. Gradually, the place will grow warm and dear to them. Should their pecuniary circumstances solidly improve, then, instead of seeking another and more eligible situation, let them take a long lease of the one they now occupy, and proceed to renovate it in accordance with their better tastes and larger abilities. This will give them that fixedness of abode which is essential to home, and which no money expended elsewhere can purchase.

THE SPURIOUS HOME.

But a worse practice than that of frequent removals seems to be steadily gaining ground in the towns and cities; and that is, the custom of family-boarding. This, it is urged, is both convenient and cheap. The wife has more leisure for society, and the husband more time and money for business and pleasure. Neither is worried or hindered by the annoyances of housekeeping. All this may be true; though we doubt about the economy, from what seems to us the sufficiently significant fact, that poor families cannot afford to board. They make a home for themselves because they must. It would seem, then, that families board not because they cannot afford to keep house, but because they cannot afford to do so in a certain style which they deem essential to their social standing. If they could go to a grand and splendidly appointed house, they would all go to morrow, and we should hear no more of the conveniences of boarding. Then, it is to this false and tyrannical god of Social Appearances that they sacrifice their comfort, their privacy and their home; for in boarding they can have none of these. They cannot choose their own table, their own hours, their own company, or their own entrances and exits. They must go in and out, up and down, at the beck and call of others. Their children must be deprived of their natural liberty, of all wholesome discipline, and exposed to the baneful influence and injurious caprices of strangers. Above all, they must be homeless; for a boarding-house is not, and cannot be made a home for any one—not even for its keepers. And to compensate for all this they have two priceless privileges: The luxury of being considered respectable, and the liberty of grumbling; and it must be confessed that they exercise the last so constantly that, one would think, it must be inexpressibly dear to them. If its exercise, however, can compensate them for the ruin of two homes —their own and that of the family with whom they board—we must say, that they richly deserve that curse of homelessness which they suffer and inflict. However, should they be forced by kind adversity to abandon the boarding-house, though for the poorest tenement in all their knowledge, they will learn at last, with grateful and happy hearts, how much truth lives in the immortal line,

"Be it ever so humble, there's no place like home."

MORAL ASPECTS OF HOME.

No consideration of what is involved in the subject of home would be complete without some allusion to its moral aspects, and the mutual relations of those who constitute the household. Home is something more than the mere dwelling place, set apart for the physical comfort and convenience of its inmates, and without the presence of its higher attributes, and the realization of its moral duties and responsibilities, it is incomplete, if it be not the mere

empty semblance of what the home should be. The complete home embraces within it limits a perfect system of social government, and it is in these integers of the aggregate community that there is to be found the highest guarantee of the stability of the whole social fabric of the state. It is not only the temple of domestic virtue, but it is the school in which men and women are qualified for their ulterior duties of citizenship. Here in youth are learned the principles of obedience to constituted authority, which in manhood are carried into the wider sphere of social duties. Here the edifice of character is founded; the moral stature trained to grow apace with physical and intellectual development, and the impress given which stamps its seal of expanding influence upon the future life, and its ever broadening associations.

Domestic Discipline—Nothing is more absolutely essential both to the future well-being of children and to the proper harmony of the household than that the youth should be thoroughly trained in the habits of obedience, and taught to honor and respect the parental authority. Filial respect is the surest foundation of an upright character, and it is the chief guarantee of the parents for the realization of the rewards to which they look forward for the care and labor expended upon the infancy and youth of children. Yet in no respect are parents as a rule more careless than in this. The true foundation of filial obedience is affection, which makes the duty a pleasure, and renders its performance doubly grateful to both parent and child. In order to insure the proper cultivation of this trait, the habit should be carefully inculcated from the earliest dawn of intelligence, until it becomes by custom a part of the nature of the child and is crystallized into character in the development of youth. Too commonly carelessness and indifference on the part of parents allow the child to drift without guidance in this respect, until they find themselves confronted with a hardened will set up in opposition to the demands of duty. True, the parental authority may then be asserted; obedience may still be enforced; but then a charm in the household is broken which can never be restored, a chord of harmony severed whose music will never again vibrate in the heart of parent or child, and one of the sweetest of domestic pleasures will have been banished from the family hearth. That obedience of children which is founded from earliest infancy on love and respect, will blossom perennially in the hearts of both parents and children, and shed enduring fragrance upon every relation of life.

The Sense of Honor—It may be assumed that all parents, in discharging the solemn responsibility of forming the character of those whom they have brought into being, and whom they are called upon to equip physically, mentally and morally for the vicissitudes of life, will take care that the character of the youth is founded in honesty, industry, sobriety, integrity, fidelity, economy, perseverance and self-reliant determination, which are the weapons in the armory of character by which success is to be wrested from

all conditions. But too little attention is often paid to the true ground upon which these qualifications should be based. Youth should be taught in the lessons of the domestic hearth, both by precept and example, that it is not only necessary and desirable that honesty, integrity and industry are to be cultivated because they are essential to material success, but in a better and higher sense, because they bring even greater rewards in the moral duty of performance, and the consciousness of its upright discharge which is the true measure of self-respect. Character which is to be a blessing to its possessor and to all its associations, should be early grounded in what Burke describes as that "Chastity of honor which feels a stain like a wound." This is the highest safeguard of moral uprightness, and the surest shield against the temptations of life.

Sympathy—There ought to be few higher pleasures in life than the companionship of our children, whether it be in the prattling innocence of childhood, the buoyant exuberance of expanding youth, or the glowing anticipations of approaching maturity. The parent who can find no congenial companionship in his child; who cannot enter into its feelings, pleasures and aspirations with ready sympathy, may depend that he lacks something which is essential to his best realization of domestic happiness. Too often this is the result of the unhealthy habit of exclusive devotion to the absorbing cares of business, which robs so many of our people of the full enjoyments of the best rewards of life. Companionship, even *camaraderie* of parents and children is a mutual benefit as well as a mutual pleasure. It is a healthy and wholesome relaxation to the parent; it brings mental improvement and moral dignity to the youth, and it is the easiest road to the establishment of that perfect confidence, which should always characterize their mutual relations, and is essential to their mutual welfare.

Influence of Example—Among the influences which surround the home, none is more powerful in moulding the character of children and so impressing every aspect of the domestic relations, than the force of example in the various duties of life by the parent. How can parents expect or hope that their children will grow up in cleanliness of mind, manners and morals, no matter how assiduously the principles of rectitude are taught, who dishonor by their own practices the precepts they seek to impress upon the young? The power of example is stronger than the force of preaching. The very confidence and respect which children have by intuition for parents, adds redoubled force to the strength of pernicious example. You may teach a child that a habit is pernicious, but if you do not apply that rule to your own conduct, he will follow your example, and regard your advice as an abstract theory which it is not necessary to practice. If you desire your son to grow up to honorable manhood, be punctiliously honorable with him, even in the smallest things and from earliest childhood; see that your

language and habits are cleansed from every taint from which you would guard his innocence; see that your passions are kept under control, and that your own dignity and self-respect are always maintained, and you will find not only the pleasure which you seek in the development of his character, but an added reward in the improvement of your own.

Home and Health—The laws of health make an imperative demand for ample seasons of recreation and relaxation from the continuous strain of the labors of existence and the cares of business. In no other place can pleasure and relaxation be found of as elevating and healthful a nature as among the pure and wholesome influences of home, in the loving society of wife and children. And yet to how great an extent are they neglected in the high-pressure rate of modern American life, depriving both the heads of families and their dependents of their best and most pleasurable associations, of their purest enjoyments, and of the best stimulus for renewed encounter with the cares of life. Even where those salutary influences are not neglected for doubtful if not injurious pleasures, it is too much the custom to bring the shop or the counting-house into the home. There is a lesson which might be learned with advantage by thousands of business men in the following extract from an article on this subject, in the *Golden Key*, by Mr. I. Harley Brock:

"If there be a fault to be found with the progressive, vigorous, energetic mode of life which is distinctively American, the characteristic of the healthy vitality of our people and their institutions, it is the tendency, too often developed, to allow the mind to become wholly engrossed in the care of business to the neglect of that large fund of resources for the higher enjoyment of domestic and social life, which every man with a sound mind in a healthy body inherently possesses. And this, when it does occur, invariably encroaches upon that period of life in which the capacity for rational enjoyment and wholesome pleasures is in its most vigorous stage. It is the too common mistake of the man of business to put off for the future day, when he shall have reached the affluence at which he aims, the exercise of that faculty of enjoyment which he robs of its present gratification with a promise to pay in the indefinite future, in order that he may redouble his attention to business pursuits. This is doubly a mistake, in that the future may never be reached; and if it be, then may be found that the time has gone by; that the capacity has perished in its neglect; that it is impossible to rekindle the fires of youth in the ashes of old age, and that when once resolved to devote the remnant of life to the pursuit of pleasure fairly won by arduous toil, there remains only the desire without the realization—able to 'clip Elysium, but to lack its joy.' He who keeps life well balanced, neither evading its duties nor refusing its passing rewards, will find in the end that he has made as

satisfactory progress in worldly prosperity, and has lived a better and brighter life."

EDUCATION OF CHILDREN.

Among the chief of the duties and responsibilities of the heads of the Home, that which embraces the education of children is paramount in importance, and ought to be the subject of earnest and anxious forethought, and of unremitting and watchful care. The object of all parents ought to be, and is, except where unnatural and abnormal conditions exist, to bend the utmost energies and to strain every available resource to so equip the youth or maiden for their future life, as to best insure their happiness and prosperity. To this end, therefore, it is primarily of importance that youth should be endowed with a sound mind in a sound body—*mens sana in corpore sano;* and this embraces as well the health of the morals, for all experience goes to show that there can never be perfect or lasting physical and intellectual vigor without moral health. These three graces of manhood and womanhood go hand in hand through life; whenever one is absent, the others are certain to languish and decay. It is unfortunately the great defect of American domestic education that the moral side of life is not regarded, as it ought to be, as strictly essential to and belonging to the duty of physical and mental education. Perhaps no people in the world are so lavishly liberal in their treatment of the youth as are the people of America. The great masses of our citizens, having to carve their own fortunes out of their capital of industry and energy, find always the gratification of a laudable ambition which had been denied to themselves, in the effort to improve the social, intellectual and material fortunes of their children. The clerk or mechanic, forced by the hard exigencies of his early circumstances to forego many of the graces, refinements and luxuries of life, now that thrift and energy have made him the master of ample competence, finds peculiar pride and pleasure in taking care that his children experience none of the privations which he so well knows how to appreciate. The mother who in the springtide of her own existence was compelled to self-denial, is prone to take a lavish satisfaction, in indulgence in dress and social pleasures to her daughters. In both cases the instinct is natural and laudable; but it also contains the element of the very greatest danger to which children so situated are exposed in their education. Such indulgence is too apt to lead to pride of person, of position, and of purse, which warp and pervert the noblest, highest and most generous instincts of manhood and womanhood, and expose those so educated in false kindness, to the ever present risk of being stranded upon the shoals of utter helplessness by the first unexpected tempest of adversity. If the father, while denying no wholesome luxury or refinement of life to his son, were also to ground him upon those solid virtues of self-denial which he in his

youth practiced from necessity; and if the mother without casting any shade upon the sunny youth of her daughters, were to teach them for their pleasure what it had been her task to practice in youth, the homely but substantial accomplishments of housewifery, these sons and daughters would achieve happier lives for themselves, and would escape many a trap and pitfall which the whirligig of time, in its eccentric and uncertain course, may bring them into contact with. Every son of wealth should learn a trade or calling; every daughter of affluence should graduate as a housewife. To affect to sneer at wealth is both absurd and vulgar, for in general its enjoyment implies the possession of some of the most worthy virtues; but the young should be taught this lesson, without which their education will never fit them for the highest and best achievements of life, viz.: that moral worth, not material wealth, makes up the highest dignity of manhood and womanhood; that well-earned self-respect is the highest reward any man can compass; that whoever possesses these, whether mechanic or millionaire, meet upon a common plane, and that upon the highest and best level of existence that human life can achieve.

Good Manners—While care is taken in the education of the young, that the development of physical perfection is accompanied by the healthy progress of mind and morals, what are called "good manners" must not be lost sight of. To paraphrase the catechism these are "the outward and visible sign of an inward and spiritual grace." They constitute the manifest expression of mental and moral health—not the expression of profession, but the spontaneous effusion of a well-constituted character. They are the blossoms which bloom upon the tree of worth and goodness, instinct with the fragrance of every virtue from which they seek the springs of existence. Good manners do not mean the mechanical observance of social formalities, the cold and unsympathetic routine of propriety. Courtesy of speech and manner, even if it be only following the adjunct to "assume a virtue if you have it not," is always pleasing and agreeable; but that is as "the tinkling cymbal," when compared with the grateful music which is awakened in the chords of a good heart by the impulses of an upright mind. Good manners, so considered, are the stamp which attests the unalloyed gold of a sweet and harmonious disposition, and no base or spurious counterfeit, however perfect the imitation or however bright and plausible the resemblance, can ever seek to rival its perfection. It should be the constant care of parents to teach the young that the courtesies of life are something real, and not a mere hollow form; and in training them in their conventional modes of expression, to gift the youth with those graces of character which shine out in good manners—deference and obedience to elders and superiors, respectful homage to the aged, chivalrous protection for the weak and feeble, sympathy with the unfortunate and even with the erring, and pleasure in adding to the happiness of others. These constitute true

politeness, and their exercise is not only a principal charm of life for their possessor and those on whom they are reflected, but they are also a powerful influence in the promotion of the material welfare.

Care of the Person—When it was written that "cleanliness is next to godliness,"—whether it was meant to imply mere bodily cleanliness, or as well purity of the mind, the manners and the morals—there was a good deal more philosophy conveyed in the proverb than is expressed. The bath of the Mohammedan is a part of his religion, and strict cleanliness was one of the most rigid injunctions of the Mosaic law. It would be an inestimable boon to the physical welfare of modern Christian countries if this virtue of the Eastern infidels could be but made a part of the ordinary religious obligation. Scrupulous cleanliness of the person is something that one not only owes to himself and to his neighbors, but it is, as well, one of the most substantial comforts and grateful luxuries at our command, while the return in physical benefit which it confers ought to be in itself a sufficient incitement to its systematic cultivation. It is greatly to be feared that this is the point of all others where physical education in America is lacking, and that while, in a sense, personal vanity compels the preservation of a presentable surface, the fair exterior which our average citizen of either sex presents is but the whiting of the sepulchre. "Shall I wash for a high neck dress or a low neck dress, mother?" is a current witticism which points at what we must fear is, to a large extent, a palpable truth. How many hundreds out of every thousand go from month to month, without any other purification than the hand-basin affords, and yet would be unanimously indignant if the whisper "unclean" were ever so gently to assail them? In how many thousands of houses do we find the piano, but not the bath-room? And yet people consider themselves refined and cleanly, and have no conception of the horror and disgust with which they would regard the revelations which a Turkish bath might make for them!

The care of the person ought to be made a very essential part of the education which belongs to Health and Home, and strict habits in this regard should be scrupulously cultivated. The bath to even the youngest child should be graduated into a habit and cultivated into a luxury. As children grow older they should be taught the most punctilious and exact habits for the care of the person, and with particular regard to the hair, the teeth, the nails, and the hands and feet; not on the ground of vanity, or even of health necessarily, but as a matter of self-respect. These habits of the body will be conveyed again to the apparel, for the youth or maiden who has been trained to fastidious cleanliness of the person will not be able to endure contact with soiled linen, unpolished boots, frayed gloves or an ill-conditioned or untidily kept hat. The care of the person has these claims to our regard: It is essential to personal comfort; it is inseparable from personal dignity and self-

respect; when cultivated, it is transformed from a duty into a wholesome and grateful luxury; and it brings a more abundant return in the store it adds to the blessings of health, than anything else within our power to compass. And moreover, it is the one luxury that is within the reach of all, and for neglect of which no one can excuse himself to himself.

Companionships—In the modern system of education, it has been found that in forming the mind and directing the intelligence of the young and impressionable, there is no mode of teaching so effective as that of object lessons. As a matter of fact, until the character has fully matured and during the whole period of the greatest susceptibility and impressibility, the whole life of youth is a series of practical object lessons. Those which he encounters in the Home, we must assume to be of the healthiest and most elevating tendency; but the prudent parent will look well and watchfully to the external influences to which their children are subjected. The most potent of these is that of companionship, and in this regard too great care cannot be taken that the associations are clean and wholesome. The solicitude of the parent, however, in this regard must be governed by discretion and judicious supervision. Too frequently it is the case, either through carelessness or unintentional neglect, arising from absorption in the cares of business, that the young are allowed to drift into unprofitable companionship, and when this is perceived it is sought to remedy it by restraint. Almost inevitably this results in re-action and serves to intensify the danger. The best and most effective way is to so thoroughly imbue the young mind with the pride of probity, and the sense of honor, that contact with anything vicious or immoral arouses a sense of repugnance and antagonism which is a certain safeguard against contamination; and youth should at the same time be led to the understanding that that which is simply idle and frivolous, though apparently harmless, is the bridge by which the positively vicious and immoral is reached. This is essentially true of the influence of books. Indeed, it may be believed that the companionship of books has a more direct, absorbing and positive influence than that of the social surroundings; and this is eminently and emphatically true of youths of studious or sensitive disposition. Too careful supervision cannot therefore be exercised over what the child is allowed to read. The fecundity of the printing press in these days has let loose upon society an overwhelming flood of idle, frivolous, vicious, utterly unprofitable and to a large degree prurient and immoral literature, if it can be dignified by the name, which is a constant menance to the mental and moral health of the young. It is a mistake, however, not to allow the mind of the youth a sufficient pabulum of wholesome literary recreation. Wholesale and unreasonable condemnation of reading for pleasure is almost certain to drive the young to dangerous indulgence in secret. Rather choose for him a fair allowance of clean and wholesome books of

useful and practical knowledge, conveying profitable moral lessons, and at the same time improving his ideas upon composition and his faculty of language. Lead him to understand and realize that companionship with the dime-novel, or the vicious class of fiction, is degrading and disgraceful, and you will thus educate his taste up to a refinement in such matters which will be his surest safeguard against the evil companionship of objectionable books.

SELECTION OF OCCUPATION.

The selection of an occupation is something which more concerns the ulterior objects of the home education, than those things which strictly pertain to the cares, duties, trials and privileges of the home circle. Home is the school in which the youth has received his mental, physical and moral training, and from which he is about to graduate with the diploma of paternal approval, sealed by the devotion, love and hope of the mother whose tender solicitude watched by his cradle, and whose fondest prayers will accompany him into the future which he is to make for himself. The choice of an occupation is something which may be and should be left to the decision of him who is to put all his future at stake upon it. But his qualification to make that choice will have rested solely upon the formation of his mind, of his feelings, or of his inclinations or prejudices, which rest to a large extent, if not solely with the parental function. And in this duty of guiding the inclination or interest which every youth has as to his career, into channels which shall best promote his future welfare and happiness, there is one rule that should govern alike rich and poor, high and low, and that is, that the dignity of labor, of duty, of life with an object in it, is essential to the true happiness and well-being of every human being. The man without an occupation—be he ever so high or ever so humble, born to purple or to penury, nursed in the lap of luxury or in the hard cradle of poverty—is an anomaly in life, a waif upon the bosom of the sea of existence, helpless, hopeless, purposeless; doomed certainly to wreck, disaster and destruction, either mentally, morally, physically or financially. All experience proves that in one or other of these shapes the fate of his useless being will overtake him. Let the children of the poor be taught that in whatever sphere of labor they may elect to work out their lot, if they but bring to bear probity and perseverance, honesty and earnestness and the sense of duty, all the best prizes of life lay open to them. Let the children of the rich be taught to respect the dignity of labor and to comprehend the vicissitudes of fortune, and while qualifying themselves for a wholesome and useful life in that more favored sphere in which they have been born, acquire also some practical vocation which shall never in any emergency leave them quite without the resources of self-respecting independence.

DIVISION EIGHTEEN.

HYGIENE.

THE DIGESTIVE ORGANS.

Statement—It is a law of the human system that each organ is moved to healthy action under the influence of its proper stimulus. The perfection of the digestive process, as well as the health of the whole system, requires the observance of certain rules, with regard to the quantity and quality of the food, the manner of taking it and the condition of the system at the time.

QUANTITY OF FOOD.

Variation—The age, occupation, temperament, temperature, habits, amount of clothing generally worn, health and disease of the individual are among the circumstances which produce a variation in the quantity of the food necessary for the system.

Growth—In proportion to this will be the natural demand for food on the part of the child and youth. The more rapid the growth the greater the demand. This makes the keen appetite and vigorous digestion of childhood. After full growth this unusual necessity for nutriment ceases, unless there should be a corresponding increase of mental or bodily exertion after this period. Without this, to continue to eat as much as during the growing stage would impair or disease the digestive apparatus and diminish the vigor of the whole system.

Repairing Waste—Loss of substance follows action in every department of nature; this is called waste. As exercise or thought increases, the fluids of the system circulate with increased energy; the old atoms of the human system are more rapidly removed by their proper organs, the vessels of the skin, lungs, kidneys, etc., and new atoms are deposited by the smaller bloodvessels.

Diminishing the Quantity—A lessening of activity implies a corresponding cessation of waste; hence, the quantity of food should be diminished in nearly the same proportion as the amount and intensity of exertion, otherwise the tone of the digestive organs must become impaired and the health enfeebled. Students who have left laborious employments to attend school, are exhausted by the demands of the new labor rather than by previous habits. The real wants of the system are generally manifested by the corresponding sensation of hunger. It is a common observation,

in academies and colleges, that the students who suffer from impaired digestion are those who have experienced this transition from labor to comparative repose.

Heat—This is produced in the system, at least partly, by the union of oxygen with carbon and hydrogen, in the minute vessels of the various organs. This union is accomplished by food and drink. The volume of heat is greatest when it is most required, *i. e.*, in cold weather. Every one has noticed that he eats with better appetite in winter than in summer. Where any deficiency of food occurs a corresponding increase of clothing is required. The principle shows the propriety of lessening the amount of food as the warm season approaches. If this were regularly practiced the tone of the stomach would not so often need restoration by means of "tonic bitters," etc. Men minister to the lower animals more wisely than to themselves; thus all who have the care of live-stock soon learn by experience that when the warm season begins their charges require less food.

Quantity to be Gauged by Condition—If the digestive organs are weakened or diseased, that amount of food only should be taken which they can easily digest. Unchanged by digestion, food weakens rather than invigorates the system. The anxiety of a mother should never induce her to give food to her sick child, unless she believe it to be actually needed. If she be in doubt, let her consult a physician.

Habit—This has much to do with the quantity of food required. Some take more than is necessary and the excess is removed by the waste outlets. If then food is not taken in the usual quantity, there will be a feeling of emptiness, resembling hunger, from the want of the usual distention of the stomach. This feeling may result from disease, but it is oftener the effect of inordinate indulgence in eating.

Effect of too Much Food—Large quantities oppress the stomach and produce languor of the whole system. The system makes an extraordinary demand for blood and nervous fluid, to enable the stomach to dispose of its burden. If an unusual effort is intended, either mental or physical, soon after meal-time, we should eat less than usual rather than more.

Appetite and Taste—Satisfaction of the appetite is the best usual test of the right quantity of food. This is the natural desire, arising from the wants of the system. Taste, on the other hand, is an artificial desire to gratify the palate.

No Certain Rule—Though many things may aid us in fixing the right quantity of food, there is no certain guide. Some think that hunger may be relied upon for this purpose; but this is evidently an error, since an artificial appetite may be induced by stimulants or gormandizing. So, on the other hand, the brain, when diseased, may not take cognizance of the sensations of the stomach, though the system may actually require nourishment.

Disease, habit, the mental state and many other things exert an influence on the state of the appetite.

It is true that Dr. Beaumont noticed, in his experiments upon Alexis St. Martin, that after a certain amount of food had been converted into chyme the gastric juice ceased to ooze from the coats of the stomach, and it has consequently been inferred by some medical writers that the glands which supply this juice would only supply enough for the actual wants of the system. But what are the reasonable grounds of this inference? Can any one show a reason why the gastric glands may not be stimulated to extra activity or be influenced by habit as well as other organs?

It is admitted that the predisposing cause of hunger is usually a demand of the system for nutrient material; but it is also insisted that this is not always the immediate cause of the sensation of hunger. Some physicians ascribe it to certain conditions of the glands of the stomach, and others to a peculiar state of the nervous system.

QUALITY OF FOOD.

Generalities—The kind of food best adapted to the wants of the system is modified by many circumstances. The different varieties of food are still further modified by the various methods of preparation. A given quality of food is not equally well adapted to different individuals, or to the same individual in different conditions. This must be obvious to all who have even slightly observed the effect of the same food, at different times, upon themselves.

What is Meant by Quality in Food—Food is either nutritive or digestible, but a single article is not necessarily both. Foods are nutritious in proportion as they supply the elements of chyle, but they are digestible only in proportion to the readiness with which they yield to the action of the gastric juice. These properties should not be confounded. Such articles as milk and eggs which contain the greatest amount of the constituent elements of the system are most nutritious, but there are conditions of the system in which these are wholly indigestible. Of course those articles which do not contain the essential elements of the system should never form the exclusive diet. On the other hand it is plain that articles which contain but a small quantity of these elements may often afford the greatest amount of nourishment because they are more easily digested.

Time of Digestion—To ascertain the time required for the digestion of the different articles of food, Dr. Beaumont made many experiments on Alexis St. Martin, the general results of which are shown in the following table. As is known to almost every one, the stomach of St. Martin was ruptured by the bursting of a gun. He recovered under Dr. Beaumont's care, when the stomach adhered to the side, with an external opening. In the healing process

nature formed a kind of a valve which closed the opening from the inside, thus preventing loss of the contents of the stomach, but on pushing aside this valve, the process of digestion could be plainly seen. It was through this orifice that the appearance of the coats of the stomach and food at different stages of digestion were examined.

TABLE,

SHOWING THE MEAN TIME OF DIGESTION OF THE DIFFERENT ARTICLES OF DIET.

Articles.	Preparation.	Time.	Articles.	Preparation.	Time.
		h.m.			h.m.
Apples, sour, hard	Raw	2 50	Meat hashed with vegetables	Warm'd	2 30
" " mellow	Raw	2	Milk	Boiled	2
" sweet, do	Raw	1 30	"	Raw	2 15
Bass, striped, fresh	Broiled	3	Mutton, fresh	Roasted	3 15
Beans, pod	Boiled	2 30	" "	Broiled	3
Beef, fresh, lean, rare	Roasted	3	" "	Boiled	3
" " " dry	Roasted	3 30	Oysters, fresh	Raw	2 55
" steak	Broiled	3	" "	Roasted	3 15
" with salt only	Boiled	3 36	" "	Stewed	3 30
" with mustard	Boiled	3 10	Parsnips	Boiled	2 30
" fresh, lean	Fried	4	Pig, sucking	Roasted	2 30
" old, hard, salted	Boiled	4 15	Pigs' feet, soused	Boiled	1
Beets	Boiled	3 45	Pork, fat and lean	Roasted	5 15
Bread, wheat, fresh	Baked	3 30	" recently salted	Boiled	4 30
" corn	Baked	3 15	" " "	Fried	4 15
Butter	Melted	3 30	" " "	Broiled	3 15
Cabbage head	Raw	2 30	" " "	Raw	3
" with vinegar	Raw	2	" steak	Broiled	3 15
"	Boiled	4 30	Potatoes, Irish	Boiled	3 30
Cake, sponge	Baked	2 30	" "	Baked	2 30
Carrot, orange	Boiled	3 15	Rice	Boiled	1
Catfish	Fried	3 30	Sago	Boiled	1 45
Cheese, old, strong	Raw	3 30	Salmon, salted	Boiled	4
Chicken, full-grown	Fricas'd	2 45	Sausage, fresh	Broiled	3 20
Codfish, cured, dry	Boiled	2	Soup, beef, vegetables and bread	Boiled	4
Corn, green, and beans	Boiled	3 45	" chicken	Boiled	3
" bread	Baked	3 15	" mutton	Boiled	3 30
" cake	Baked	3	" oyster	Boiled	3 30
Custard	Baked	2 45	Suet, beef, fresh	Boiled	5 30
Dumpling, apple	Boiled	3	" mutton	Boiled	4 30
Ducks, domesticated	Roasted	4	Tapioca	Boiled	2
" wild	Roasted	4 30	Tripe, soused	Boiled	1
Eggs, fresh	Boiled hard	3 30	Trout, salmon, fresh	Boiled	1 30
" "	Boiled soft	3	" " "	Fried	1 30
" "	Fried	3 30	Turkey, domesticated	Roasted	2 30
" "	Raw	2	"	Boiled	2 25
Flounder, fresh	Fried	3 30	" wild	Roasted	2 18
Fowl, domestic	Boiled	4	Turnips, flat	Boiled	3 30
" "	Roasted	4	Veal, fresh	Broiled	4
Goose	Roasted	2 30	" "	Fried	4 30
Lamb, fresh	Broiled	2 30	Venison steak	Broiled	1 35
Liver, beef's, fresh	Broiled	2			

Kind of Food Required—If we eat only those articles most easily digested the digestive powers will be weakened for want of exercise; while if we pursue the opposite course they will be exhausted by overwork. The kind and amount of food should therefore be adapted to the maintenance of the digestive powers when in health and to their gradual invigoration when debilitated. However, the most easily digested food is not always best for a person recovering from sickness, because if it passes too readily through the digestive process it may bring on a relapse into the original disease. Thus water-gruel is often better for a convalescent than beef-tea and fish, though the latter are more easily digested.

Animal or Vegetable Food—It is not yet well settled which of these is better adapted to nourish man. The people of the torrid zone subsist chiefly on vegetables, and a large proportion of these are fruits; while those of the frigid zone live principally on fish and flesh. There is little doubt that in this both obey the condition of health peculiar to either climate; though in the latter very little choice is possible. It would seem to follow then that a mixed diet of animal and vegetable food, the proportion of either varying with the latitude, is best for the inhabitants of more temperate zones. The form and arrangement of the human teeth, as well as the structure of the stomach and intestines, would perhaps lead us to conclude that a mixture of animal and vegetable food is on the whole best for all, wherever they may happen to live.

Adaptation of Food—The distensible character of the stomach and alimentary canal should determine this. While the human stomach will be full if it contain but a gill, it may be so distended as to hold a quart, or even more. The intestines also are extremely distensible. Now, if this distensible quality is unused, as it must be if only nutritious food is used, they become at last incapable and diseased. The digestive organs absolutely require the stimulus of distension and friction caused by the passage through them of a considerable quantity of wholly innutritious material. This is the reason unbolted flours are so generally prescribed for dyspeptics; and, as it is quite evident that the natural tendency of sedentary habits is in this direction, enfeebling the appetite and the whole digestive apparatus, persons so employed ought to be particularly careful on this point.

Any one in whom there appears a tendency to either diarrhea or constipation may generally so apply this principle as to check the tendency and be restored to health without other aid. In diarrhea the food should contain a very small proportion of waste or innutritious matter, while in constipation the proportion of waste should be as large as practicable.

Season and Climate—These should always be considered in the selection of food. In cold weather, food of a highly stimulating character may be used almost with impunity by persons to

whom such food would be very injurious, and even highly dangerous, if used in a milder temperature. The proportion of animal to vegetable food, therefore, should be greater in the winter and smaller in the summer.

Age of the Eater—Every one understands that the digestive organs of a young child are much more delicate and sensitive than those of an adult, and that they cannot therefore bear the same strong and rough food. This is true also of a very aged person, who seems in body as in mind to experience a second childhood. A nutritious, unstimulating, vegetable diet, as soon as warm weather sets in, is very important to those whose digestive organs are highly impressible or diseased.

Modifying Habits—This influence is very powerful. The custom makes the man. If one who has been used to a vegetable diet change suddenly to animal food, or *vice versa*, the whole system receives a shock, and disease is likely to follow, especially of the digestive organs. If a change in the manner of living is necessary, it should be brought about very gradually. Even a change from a bad to a good habit may be too sudden and violent.

Food and Temperament—It is obvious that a food quite proper for one temperament would be entirely too stimulating for another, and the reverse of this is also true; that is, it might be too little stimulating for another. People of dull sensations and slow movements, as a rule, will be benefited by a large proportion of animal food; while quick, susceptible and nervous persons require a nutritious and unstimulating vegetable diet.

MANNER OF TAKING FOOD.

This is of very great practical importance, as the health of the digestive organs very largely depends upon it; and this a thing so fixed and certain that circumstances need hardly ever modify it.

Regularity of Eating—The character of the food, and the age, health, exercise and habits of the individual, should determine the intervals between meals. Every one will understand that the digestive process is much more rapid and energetic in the young, active and vigorous than in the aged, indolent and feeble, and food must, in consequence, be taken more frequently by the former than by the latter. Food may be digested in one hour in a young and vigorous person, which would require four or five hours in others. However, the average time of digestion will be from two to four hours, and the stomach will require from one to three hours to recruit its exhausted powers after the labor of digesting a meal, before it is well prepared to enter upon a new task of the same kind.

Not too Frequent—The secretion of gastric juice will be insufficient, and the contraction of the muscular fibres too feeble and

imperfect, rightly to perform the work of digestion if food is again taken before the stomach has had time to regain its tone and energy. If taken before the work of digesting the previous meal has been completed, the effects will be still worse, because the partially digested food becomes mixed with that last taken, and the stomach is burdened with the whole mass, which has become at once too large for its already fatigued and exhausted forces. The intervals between meals should therefore be long enough for the whole quantity to be digested, and for a sufficient period of repose of the exhausted organs. The importance of these suggestions increases in proportion to the feebleness of the person and the debility of the stomach. They should be regarded especially in the feeding of infants and older children. Persons recovering from severe illness should pay special heed to them if they wish to regain flesh and strength rapidly. The rapidity of the digestive process, other things being equal, is in proportion to the habitual activity of the life, and persons of sedentary habits are therefore more liable to eat too often than others of more busy and stirring pursuits, and the consequences with the former are worse.

Mastication—This should be as nearly complete as possible; that is, all solid articles of food should be reduced to a state of comparative fineness by chewing before they are swallowed. The gastric fluid will then mix with it more readily, and act more vigorously in reducing it to chyme. "Bolting," that is swallowing food slightly masticated, tends to derange the digestive apparatus and impair the nutritive powers.

Motion of the Jaws—This should be slow rather than quick, so that the salivary glands may have time to secrete a sufficient quantity of saliva to moisten the food. If the food is swallowed unmoistened by saliva the digestion is retarded; besides in rapid eating more food is taken than the system demands, or than can be easily digested. Laborers and business men, as well as people of more leisure, should have ample time for taking their meals. Imperfect mastication is a potent cause of dyspepsia.

No Drinking at Meals—The use of tea, coffee, water or any other fluid, is not required by nature's laws while taking a meal, because the salivary glands are intended to supply fluid to moisten the solid food. "Washing down" the food with drink instead of slowly moistening it with saliva, tends to produce disease not only in the salivary organs by leaving them in a state of comparative inactivity, but in the stomach also by the deficiency of the salivary stimulus. Besides, large quantities of fluids used as drinks unnaturally distend the stomach and lessen the energy of the gastric juice by diluting it. These drinks when taken into the stomach must be removed by absorption before the digestion of the food can be even commenced. Drinks should never be placed on the table until the solid food is eaten. The horse will never voluntarily leave his provender nor the ox his hay, to wash it down. If we would be

as healthy as these animals, we should be as natural in our habits of taking food. Drinking largely at meals is a mere habit, and a most unnatural and unhealthy one.

Thirst—This sensation does not always arise from the demand for fluids to increase the water of the blood, as in desire for drink which accompanies free perspiration; in this case, water or some other drink is absolutely necessary; but it often results from fever or local disease of the parts connected with the throat. In these instances thirst may be allayed by chewing some hard substance, such as a dry cracker. This excites a secretion from the salivary glands which removes the sensation. In thirst, from a heated condition of the system, this practice affords relief and is safe, while the practice of drinking large quantities of cold fluids is unsafe, and should never be indulged.

Hot Food and Drink—It should not be taken very hot. When this is done, the vessels of the mucous membrane of the gums, mouth and stomach are unduly stimulated for a short time; this is followed by a loss of tone and by debility of these parts. The practice is a fruitful cause of spongy gums, decayed teeth, sore mouth and indigestion. But neither should it be taken very cold. If a considerable quantity of very cold food or liquid be taken into the stomach, the tone of the system will be impaired and the health endangered by the sudden abstraction of heat from the coats of the stomach and surrounding organs, to impart warmth to the cold food or drink. This arrests the digestive process and the food is kept in the stomach too long and produces oppression and irritation. Food and drink warmed, rather than heated, are best suited to the natural condition of the digestive organs.

It may have been observed that the inferior animals, as well as man, are injuriously affected when a bad quality of food is taken into the stomach, or taken in an improper manner. Cows fed on unhealthy slops, as they are likely to be in cities, decay and go dry in about two years. Is the milk of these diseased animals a safe nourishment for children?

CONDITION OF THE SYSTEM.

Violent Exertion—Severe exercise of either mind or body should not be taken immediately before or after eating, because all organs when in action require and receive more blood and nervous fluid than when at rest. Of the brain, muscles and vocal organs, this is especially true; and whatever of unusual supply they receive must be taken from other parts of the system. Of course, then, the parts from which these are drawn must be correspondingly weakened. Again, after such an extraordinary local demand and supply some time must elapse before the tide can be arrested and turned to other organs, so as to re-establish the equilibrium of the

system. Severe exertion, therefore, of any kind should never be made within a period varying from thirty to sixty minutes of the time of taking a meal. This interval may be passed in cheerful amusement or conversation. The prevailing practice among all sorts of people of passing at once from severe employment to meals and from meals back to work does much to undermine the health of all the mental and physical laborers of this country.

To satisfy himself of the soundness of this theory an Englishman had two dogs fed on the same article of food, and while he permitted one of them to remain quiet, he sent the other in pursuit of game. At the expiration of an hour he had both dogs killed. The stomach of the one that had remained at rest was nearly empty, the food having been properly changed and carried into the alimentary canal; while, in the stomach of the dog that had been running, the food remained in nearly the same state in which it had been eaten. The same fact is true with man, with this difference, that his organs being more delicate he is more liable to deep and permanent injury from a similar cause. The Spanish "siesta," or after-dinner sleep, would be no bad custom to engraft upon the habits of the Anglo-Saxon race. It is true that in some instances of strong health and constitution, persons may seem to violate the law with impunity; but outraged Nature will sooner or later have her revenge. The Spanish custom might, perhaps, be substituted and improved by an hour of gentle exercise or pleasant recreation before and after meals, as these facilitate digestion and help to sweep "the cobwebs from the brain." No judicious horse-master rides or drives his animals as soon as they have swallowed their food, because he knows that this makes them dull and sluggish and tends to impair their efficiency. What a pity that he cannot be induced to treat himself as kindly.

The Passions—All have observed their influence upon the appetite. Let a man, sitting at table and beginning the enjoyment of a hearty meal, receive suddenly intelligence of the death or dangerous illness of a dear friend, or be made violently angry or unusually excited in any other way, and note the effect upon his appetite. It disappears as if by magic. This is merely because the blood and nervous fluid have been drawn away from the stomach to supply the violent demands of those other organs which were roused to action by the stimulus of passion. Let the passion be calmed and a proper interval elapse and he will turn hungrily to his meal. This shows the importance of shutting out the "shop" from the meal; of avoiding at that hour absorbing thoughts and discussions; and that every one who appears at the board should show only the lightest and sunniest phase of his temper and character.

Prostration of the Nervous System—Indigestion from this cause should receive very careful attention. The food should be simple, nutritious, moderate in quantity, and taken at regular

intervals. The nervous prostration is increased by large quantities of stimulating food taken frequently. That the brain may be excited to a natural and healthy action and so impart the needed stimulus to the digestive organs, open-air exercise should be combined with cheerful conversation.

Food before Retiring—Nothing should be eaten for at least three hours before going to bed. Unpleasant dreams or colic-pains are frequent effects of going directly to bed after a hearty meal. The reason of this is, the brain becomes partially dormant by sleep and thus fails to afford the digestive organs the requisite nervous stimulus. As a consequence the food lies undigested on the stomach, producing local oppression and irritation.

A physician of our acquaintance was called on by a famous hunter of the Virginia mountains for a prescription for nightmare —not to cure, but to cause it. His old woman, he said, complained mightily of it, but he thought she was shamming to excite sympathy. He would like to have it once, just to know what it was. The doctor directed him to go home, spend the next day in hunting, and just before going to bed at night to eat as much as he wanted of bacon and cabbage. When his rueful face next appeared in the physician's office, he said, "Doctor, I know all about it, and the old woman wasn't shamming a bit."

Small Quantities of Food—Only those should be taken of a mild, unstimulating character, when the general system is feeble and the digestive organs weak. To a half-famished man, or one recovering from dangerous illness, this rule is imperative. Too much food will then almost certainly kill. The weak stomach, after its long inaction, is as unfit for hard labor as are the muscles. Under these circumstances knowledge and prudence, rather than appetite, should direct the giving of food. It is a popular fallacy that "food never does harm when the appetite calls for it." The animal and vegetable broths are a convenient form of food in cases of great prostration, when the system needs immediate nourishment, because liquids are more rapidly removed from the stomach by absorption.

The Skin and Digestion—It is an important fact, though few people seem to know it, that the condition of the skin exerts a powerful influence on the digestive organs. The action of the stomach and its associate organs is diminished whenever free perspiration is checked, either by want of cleanliness or chills. Many liver and stomach complaints owe their origin to this cause. Many diseases of the alimentary canal, also commonly called "summer-complaints," might be prevented by attention to clothing and bathing.

Tight Clothing Impairs Digestion—The ribs are raised, and the central part of the diaphragm lowered from one to two inches at each full drawing of the breath. This depression is accompanied by a relaxation of the outer abdominal walls. When the

breath is thrown out the abdominal vessels contract, the ribs are depressed, the diaphragm relaxes, and its central parts ascend. These movements cause that raising and lowering of the stomach, liver, etc., which form the natural stimulus of these organs. Of course, these movements cannot take place freely in persons who dress tightly, and the tone and vigor of the digestive organs in those persons is consequently impaired. A confined waist will not permit a full and deep inspiration; and thus it is that tight dressing soon enfeebles and destroys the digestive functions.

Relation of Pure Air to Digestion—A keen appetite and strong digestion depend greatly on pure air. Pure blood cannot exist in the system except when we breathe a pure air, and the digestive organs need not only the stimulus of blood, but of pure blood. It has been noticed that the mouth and throat of those persons who sleep in small and badly ventilated rooms, are dry and unpleasant in the morning and they have little or no appetite, and this is the reason of it; impure blood lessens the desire for food and weakens the digestive organs. The following incidents will indicate this.

It is said of an innkeeper, in London, on no less an authority than that of Dr. Reid, in his work on the "Ventilation of Rooms," that when he spread a public dinner, he always did so in a low and ill-ventilated basement room, and that he assigned, as his reason for this, that his guests consumed only about half as much food and wine as they would have done if more pleasantly situated.

It was stated before a committee of the British Parliament, by a manufacturer, that he had taken away an arrangement for ventilating his factory, because he noticed that his hands ate much more after his mill was ventilated, and in effect that he could not afford to have them breathe pure air. The impure air of the rooms they occupy causes many of the cases of indigestion among clergymen, seamstresses, school-teachers, sedentary mechanics and factory operatives, and they may be prevented or cured by attending to ventilation.

Evacuation—This is a daily necessity for the preservation of health. There is very frequently an inactive or costive condition of the alimentary canal, in chronic diseases of the digestive organs. This may always be relieved by friction over the abdominal organs, and by making an effort, at some stated period of each day (evening is best), to evacuate the residuum. Regard should be especially had to regularity in this matter in acute diseases, such as fevers. For those afflicted with piles, the best time for evacuating the bowels is immediately before retiring for the night; for the reason that during the night, while the body is in a recumbent posture, the protruding part returns to its proper place, and the surrounding organs acquire added tone and strength to retain it there. The bladder, as well as the intestinal canal, should be regularly and frequently evacuated. Most distressing and incurable complaints are caused by bad habits

and false delicacy in this particular. Teachers should be especially careful, in this respect, with regard to their younger pupils.

THE MUSCLES.

The Law—That whenever a muscle is called into use, its fibres increase in thickness, and that it correspondingly diminishes with disease, is the law of the muscular system. The force of action of a muscle is proportioned to this thickness. In other words, the action and power of any organ measure each other. In order, then, that the muscular system may be prepared to meet the demands of nature and occasion, it must be exercised.

Limits of the Law—These are full growth, or the maturity of life and power. Whenever the muscles act, the flow of blood is increased in the arteries and veins. This increased flow causes a more rapid deposit of the matter of which the muscles are composed. The deposit of new material will be in excess of that removed, and the size and energy of the vessels increased, if the exercise is equal to the power of the system. So the muscles become strong by use, or labor.

Excess—Exercise, either for pleasure or profit, should never be carried to the point of exhaustion—though this should be distinguished from fatigue—if one wishes to secure their utmost capacity. The hard labor frequently diminishes the weight, by several pounds, within a few weeks. This is also illustrated by the attenuated frames of overtasked domestic animals. The loss, in these instances, exceeds the new deposits of material. In a word, the muscles are lessened in size and diminished in power, whenever the exercise is continued so long as to produce a feeling of exhaustion.

The Practical Inference—The strength should be the measure of exertion. Any other rule will fail to invigorate the system. Exercise and labor must therefore be adapted to the strength of the individual. If a mile of riding or walking cause slight fatigue, this may be beneficial, while the exhaustion occasioned by doubling the distance may prove highly injurious. It is therefore plain that the same amount of exercise will not do for different people.

Rest—The long strain on a muscle enfeebles its action and impairs its contractibility. One can hold the arm extended but a short time, whatever effort he makes. This holding out of the arm, with a book in the hand, is sometimes inflicted as a penalty in schools and it is a severe one. Most boys would prefer a sound whipping. The law of health is that relaxation must soon follow contraction; or in other words, that rest must follow labor.

School—Frequent, though short, recesses are necessary for small and feeble children; the younger and feebler the children,

the greater the necessity. This is founded on the organic law that muscular action must be alternated by rest. Any one may notice that the small children in a school room, after sitting a short time, become restless. A change of position, for a short time, will enable their imperfectly developed muscles to regain their strength when they will again support the spinal column without pain.

Exhaustion—This is the constant and necessary effect of continuous muscular contraction. No difference how seemingly light and easy the exertion, its continuance becomes, after a time, intolerably wearisome. The mere motion of a finger, if long continued, exhausts the whole frame. Change of employment brings a new set of muscles into play, and is often equivalent to rest.

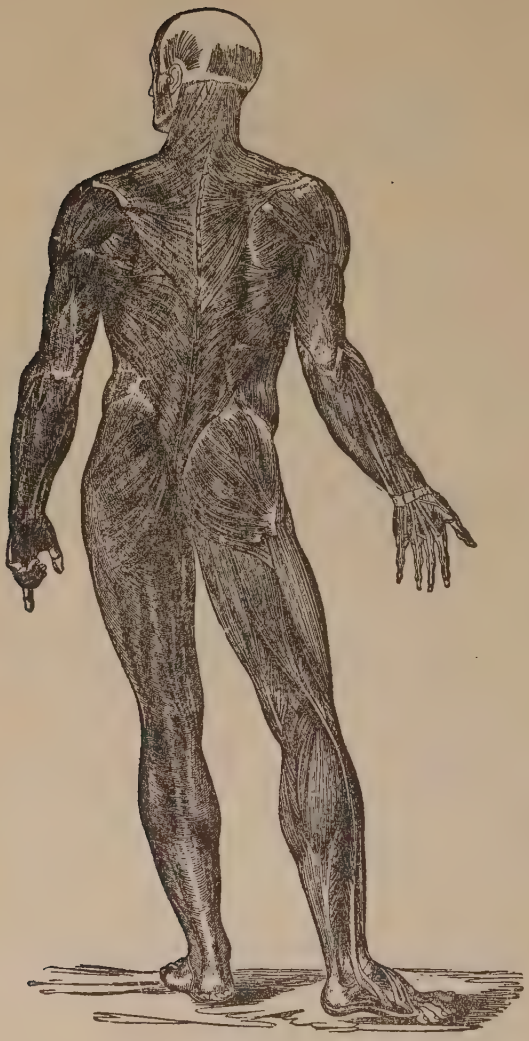
The Utmost Muscular Capacity—This is to be attained not by prolonged exertion, but by taking sufficient time for rest. Of two men of equal strength, the judicious and understanding one, who never hurries and who rests at regular intervals when the muscles require relaxation, will accomplish far more labor, in a protracted time, than the nervous, over-strained and long-continued exertions of his competitor. This principle may be profitably applied to the labor of domestic animals, as to all other kinds of employment. Convalescing invalids frequently suffer relapses from inattention to this law.

A Common Experience—Neither growing youth nor habitually hard-working men can endure the severe muscular strain which can easily be borne by those who are at once mature and unexhausted. Napoleon I. complained that his boy-conscripts could not bear the severe marches of his campaigns and in our own war between the States, the young men from the towns and cities were found capable of sustaining vastly more hardships than the young men from the country. This was owing, in the first instance, to immaturity, and in the second, to the habitual exhaustion of the farm-laborer.

Graduation of Exertion—After rest, the first motions should be slow, and the increase to strong or violent exertion, very gradual. Of a task requiring several hours for its completion, considerably less than half should be performed in the first half of the allotted time. On this plan, we should conduct the labor of domestic animals. The reason for this is that the muscles require more blood and nervous fluid when in action, than when at rest; and as the circulation of these fluids can only be increased gradually, it follows that sudden and violent muscular exertions have an effect similar to that of working machinery unoiled; that is, the friction of the parts consumes the very substance of the machinery.

Gradual Rest—This is also important. If one has been making violent or long-continued exertions, it is better to substitute some other or gentler exercise than to turn immediately to rest. Thus time is allowed for the reflux of the blood and nervous fluids into their ordinary and more diffused channels, instead of allowing

Muscles—Front View.



Muscles—Back View.

them to stand and stagnate, so to speak, when the muscles cease to use them. The stiffness and soreness of the muscles after rest is an evidence that the change from exertion to repose was too sudden. If the skin be covered with perspiration, produced by the severity of the labor, this suggestion is so much the more important. Never sit or lie down to rest in this state. It is the well-known and proper practice of great walkers and other athletes to have themselves well rubbed down, like race-horses, before they go to rest.

Pure Blood—This affords the highest muscular stimulus; pure blood can only come from a strong and healthy digestion and this again depends on a clean and properly warmed skin, pure air, abundant sunlight and the free and unrestricted movement of the ribs, diaphragm and lungs. It is of great practical importance to both men and women to observe these conditions, whatever may be their vocation or mode of life.

Open-air Exercise—This is important for the reason that the purer the air we breathe the more stimulating will be the blood supplied to the muscles, and the longer continued may be their exertion without fatigue or injury. Thus also we see the importance of thoroughly ventilating all inhabited rooms and especially sick-rooms. The patient can sit up longer when the air is pure and he finds his strength and appetite in every way improved. This is the reason a patient can sit up longer while riding in a carriage than in an easy chair in the room where he has been ill; it is the difference made by pure and impure air.

Light—Exercise should be taken as much as possible in the light of day, and unless the sultriness of the hour or season forbid, in the full sunlight. Men and animals, as well as plants, require the stimulus of this agent. It would be well if all shops, kitchens and sitting-rooms could be situated on the sunny side of the house. Students especially should take their exercise during the day and laborers shun night-tasks. Like plants that grow in the shade, persons who dwell in dark rooms are paler and less vigorous than others.

Regular and Frequent Exercise—Days of severe toil, followed by days of idleness—such is the custom of the savage and unreasonable man. Exercise, on the other hand, should be regular and frequent. A weekly fast of twenty-four hours is not more absurd and unnatural than a weekly suspension of exercise for a like period. It is not more true—though a matter of common experience and observation—that people who practice fasting, ruin their health thereby, than that those who abstain from daily exertion injure themselves correspondingly. The late Thomas Carlyle said he came out of a three-days' fast with a Devil of Dyspepsia that haunted and cursed his whole life; and many a man and woman, if they only knew it, have emerged from corresponding periods of idleness with the twin of that same Devil of Dyspepsia. It is true that the evil consequences of neglect of exercise steal more slowly

and gradually upon their victim; but they are not the less dangerous or deadly, and sooner or later they are manifested in muscular weakness, irritability and dyspepsia.

Kind of Exercise—That species is best which calls into action the greatest number of muscles. For this purpose farm labor and domestic employments, care being taken that neither is pursued to the point of drudgery, are the best as vocations; and fencing, rowing, archery, quoits and dancing, where the place is open and the air pure, are the best among the pastimes. It is all-important that every part of the muscular system should have its proper share of exercise.

The Proper Hour—While this must depend largely upon circumstances, as a general rule morning is better than evening, when the air is pure and the ground dry; because the physical powers are greatest in the morning. Shortly before or after meal-time severe exertion should be avoided, though gentle, recreative exercise is better than complete idleness on either of these occasions. So, severe mental toil should be hedged about by a similar period of recreation, separating it from violent physical exercise. Where circumstances will at all permit it is best to observe these distinctions of time.

Effect of Sleep on the Muscles—The wearied and exhausted condition of watchers, night-police and others who spend a part or the whole of the night in some active employment, illustrates the fact that it is not well, if it can be avoided, to invert the common hours of rest and labor. The reason of this must lie in the fact that the quality of the day-sleep is not equal to that of the night; it is neither so sound nor so refreshing. The quiet hours of night seem sacred to repose, and the alternation of day and night seems specially adapted to the wants of the system. The muscles require sleep to restore their wasted energies, and the best sleep is their best restorative.

Compression—Any compression is injurious to the strength and tone of the muscles to which it is long applied, for the reason that it prevents the free passage to them and through them of the blood which is their only source of supply. This may be illustrated by the case of a man with a broken limb; the compression of the bandages lessens in a little while the size of the limb, and this can not be restored until they have been removed. In this way, tight dressing enfeebles, and in the end paralyzes the muscles of the back and produces curvature of the spine, projecting shoulders and diseased lungs. Every unyielding substance, such as whalebone, wood and steel, should be banished from the toilet as enemies of life.

Mind and Muscle—A full, nervous impulse is essential to the most energetic muscular action, and this the mind alone can supply. This is the secret of the preternatural strength of anger, and of other great excitements. So, the tone and contractile energy of the muscular system are always, though in a less degree, dependent upon the co-operation of the mind. Every one has experienced

the fact that less fatigue attends and follows exertion under a buoyant and healthy mental stimulus, than without it. While reluctant labor is exhausting, cheerful and willing labor leaves hardly a trace of toil. A successful sportsman pursues his game without any sense of fatigue, while, if unsuccessful, he finds it a task to drag himself along. In war, when the long march seems to have exhausted every muscular energy of the tired troops, let but the enemy appear and every one is on the alert and ready for vigorous action; while should the alarm prove false the mental stimulus is withdrawn and lassitude again falls upon the army. Therefore it is that more depends upon the habitual spirit of the soldier than upon the bulk and strength of his muscles, and that striplings have so often out-wearied and out-marched the sturdiest veteran in the ranks. So in the daily vocations of life, if the mind have some cheerful or noble incentive to toil, the tiresomeness of labor is greatly diminished. Those men are the true captains in the army of labor who are capable of inspiring the workmen whom they control with a cheerful and willing spirit. One such foreman or overseer is worth for the interest of his employer half a dozen of the dull or driving sort. Hence also walking for mere exercise—though this is better than no exercise of the muscles—is comparatively irksome and unprofitable. Let your daily walk have some errand or objective point, to which the mind can look with interest, and health and strength will more speedily result.

DIVISION NINETEEN.

How to Cook Food to make it Healthful, Palatable and Digestible, thus Distinguishing from Cook-books, that give receipts destructive to Digestion, Health and Life.

Food is a subject of great interest to the healthy and the sick, which concerns not merely gratification of taste, or satisfaction of the appetite, but also the maintenance of life. In health, diet may be left very much to the inclination of the individual, both with respect to quality and quantity; since unless appetite be perverted and depraved by rich sauces and high seasonings, it is on the whole the best guide. Judgment must, however, be exercised in respect to eating and drinking, or man soon degenerates into a mere animal. In disease, on the other hand, the appetite fails to guide, and intelligent judgment is more required in the selection of different articles of diet, because regulation of quantity and quality is of greater importance than in health. The taste of an invalid is in most cases so perverted that he may reject the most suitable article, and desire the most injurious. His appetite is too capricious to be trusted to regulate quantity. Hence the severity of the disease might be increased and the life of the patient imperiled, if taste and appetite were permitted to govern the selection of food, instead of intelligent knowledge of the properties of different foods, and judicious experience in their administration. There should be no exception to this rule except by way of experiment, when observation may be carefully made of the effects of food craved by the patient, given in cautious quantities, when the results may be taken for guidance.

In not a few disorders an acquaintance with dietetics is as essential to the proper treatment of the patient as a knowledge of drugs, for the action of medicine may be counteracted by unsuitable diet. It is of great importance to know what variations in food are permissible, for an invalid soon tires of the same food. Tea and toast may be palatable for a time, but "What else may I eat?" is soon the inquiry he ruefully puts. Experience shows too that there is considerable ignorance of the best methods of preparing food suitable for the patient. In the present day it is deemed desirable to lay down for the guidance of mistresses and servants the principles of cooking and to give public lessons in cookery. But these are for the food of the table, not for that of the sick-room. The

latter requires more care in selection, more special attention in preparation, more delicacy in serving, than the former. For instance, how much good meat has been wasted, and how many patients have been troubled, because cooks instead of making beef-tea made soup?

Dietetic Rules Important—Good health can be maintained, and when disturbed can be restored, only by the adoption of rules of diet which insure a due supply of healthy blood to the system. The waste constantly resulting from the common duties of life must be repaired, and if the quality of the blood be deteriorated in disease it must be improved. But the blood is what the food makes it. As the supply of food, then, is increased or decreased, or its quality altered, so the blood is affected and the health is maintained or lowered. Hence the necessity for observing dietetic rules, as in consequence of their infraction many diseases arise. The badly cooked, poor food of the working classes is often innutritious and causes various disorders, the best cure for which is not medicine, but sufficient, suitable and properly prepared food. Any one who has been much among the poor, visitors who have tended the sick, practitioners who prescribe in dispensaries, know full well how important a part sufficiency of appropriate diet plays in the condition of those to whom they minister.

The digestibility of food and its subsequent assimilation depend as much upon the mode of its preparation as upon the condition of the person who eats it. If this be true of the healthy, it is much more true of the sick. Not infrequently a change in the method in which food is cooked is the simple means whereby it may be rendered acceptable and easily digested by the individual who had previously suffered from taking it. Such change may afford marked relief in some functional bowel disorder. In chronic diseases of the digestive organs, in which the appetite remains unimpaired, or is inordinately increased, attention to dietetic regulations becomes of great importance, since in such cases there is considerable danger lest the boundaries of prudence should be overstepped, in yielding to the urgent claims of appetite, demanding excessive or unsuitable food.

It is impossible to lay down regulations for the rational and methodical use of food in health and disease; for in this as in other matters, each case must be dealt with on its own merits. Sex, age, employment, condition of life, physical form, idiosyncrasies, circumstances—all are elements in the solution of this problem, "What to eat and what to avoid." The father must consider the wants of the family, the mother the special needs of a frail child, the physician the peculiar requirements of his patient, in making arrangements for suitable dieting; no precise hard and fast rules can be laid down. General principles alone can be enunciated, known scientific facts can be promulgated; well tried common experience can be recorded; then, out of the materials thus supplied, what is the most fitting for

each case must be selected with intelligence and judgment. Even when a selection is thus made, it too frequently happens that instructions are not observed. Ignorance, prejudice and carelessness prevent compliance with judicious advice. Nevertheless, health is maintained, and where impaired is often restored, in spite of these drawbacks. Robust health would be more common, recovery more rapid, and mortality much less, were dietetic rules universally observed.

Violation of Instructions Wrong—Neglect, or positive violation of instructions in this respect is unpardonable. The physician prescribes certain food just as he prescribes certain medicine. But while the medicine may be honestly given, the food is withheld or other food substituted. The patient and the friends of the patient often deceive the physician with reference to diet and deem the original transgression and the subsequent deception trivial offences. The consequence is that the recovery of the patient is retarded and the physician and his treatment are disgraced. Infractions of dietetic instructions are always occurring of which nothing is known unless aggravation of the disease be so marked as to lead to disclosure of the indiscretion.

The impossibility of prescribing fixed regulations for diet is obvious, from the fact that some persons can take what others are obliged to reject. The saying, "What is one man's meat is another man's poison," contains much truth. Even when there is a similar derangement of the digestive organs some persons can eat with impunity what others must eschew. Some of the least digestible articles of food, such as fried fish, cabbage, cheese, fats, etc., may be eaten by some dyspeptics, while others cannot partake of them without suffering severely.

In considering the kinds and proportions of food to be eaten, it should be remembered that even healthy persons do not always assimilate all the elements possible. Some escape digestion and pass out of the system with the waste, and allowance must be made for this. Food which requires some strength of digestive function may be thrown away upon an old person whose limited secretions cannot dissolve it and who may therefore be only insufficiently nourished, while the same food would be easily and advantageously assimilated by the young. On the other hand, easily digested diet suitable and sufficient for an old man might be unsuitable and insufficient for an active youth. The employments of life also necessitate variations in kind and quantity. Even appetite is not an infallible guide. Physical and mental labor, out-door and in-door work, demand difference in diets. The nursing mother requires more food and of a different kind from that taken by the quiet housewife of sixty years of age. The patient suffering from chronic unhealthy discharges must meet that drain upon the system. Morbid conditions and functional derangements of different organs, though not amounting to an illness, or sufficient to keep a person

from ordinary work, require consideration in regimen. The good cheer which includes considerable nitrogenous aliment, while prejudicial to a gouty subject, is beneficial to a man who takes much exercise in the open air. The bread, which is "the staff of life," must be withheld from the diabetic. So that no dietetic rules can be laid down to suit all cases either in health or in sickness.

Condiments—Such condiments as vinegar, salt and pepper, make food more tempting to the palate, stimulate a flagging appetite and sometimes create an unnatural one. The constant presence of salt in the secretions and in the blood indicate its importance as a food. This is evident in the instinctive desire of animals and man, craving for it when it is not supplied in sufficient quantity. It is essential to the maintenance of health, and must not be forgotten in the diet of the invalid. Pepper, mustard, horse-radish, ginger, allspice and nutmeg are constantly mixed up with food, and there is scarcely a dish which does not contain more or less of these substances. Cooks cannot leave each individual to season his food as he may prefer.

Many cases of dyspepsia and chronic inflammation of the stomach are caused by condiments. When taken in immoderate quantities, they cause an unnatural flow of the blood to the stomach, which increases the secretion of the gastric juice. This produces an excessive appetite, and the individual eats more than the system requires and more than the stomach can digest. This undigested food becomes a foreign body which causes diarrhea and various other stomach and bowel derangements. Parents have not the right to expect that their children will grow up temperate, virtuous and good—to say nothing of their physical health—when they are permitted abuse of this kind of food. Condiments render plain and wholesome food insipid, by destroying the natural acuteness of the taste.

THE APPLE

The Japanese Fountain of Eternal Youth and Beauty

The apple, the food of the gods, the mainstay of life in Eden, the most luscious, the most precious, most health-giving food on earth. No wonder poets in all ages have sung its praises. It is the most universal fruit, being found throughout the temperate zone of all countries of the globe.

The secret of its power lies in the malic acid and the picric acid it contains. The malic acid, which no chemist has been able to reproduce, has a marvelous power of awakening to healthful activity all those secretions of the body that tend to cleanse the entire system, hence its great value in many diseases, and in preventing diseases.

Obtaining Beauty of Face by Means of the Apple—It is recorded that Cleopatra, of Egypt, the most renowned beauty of ancient

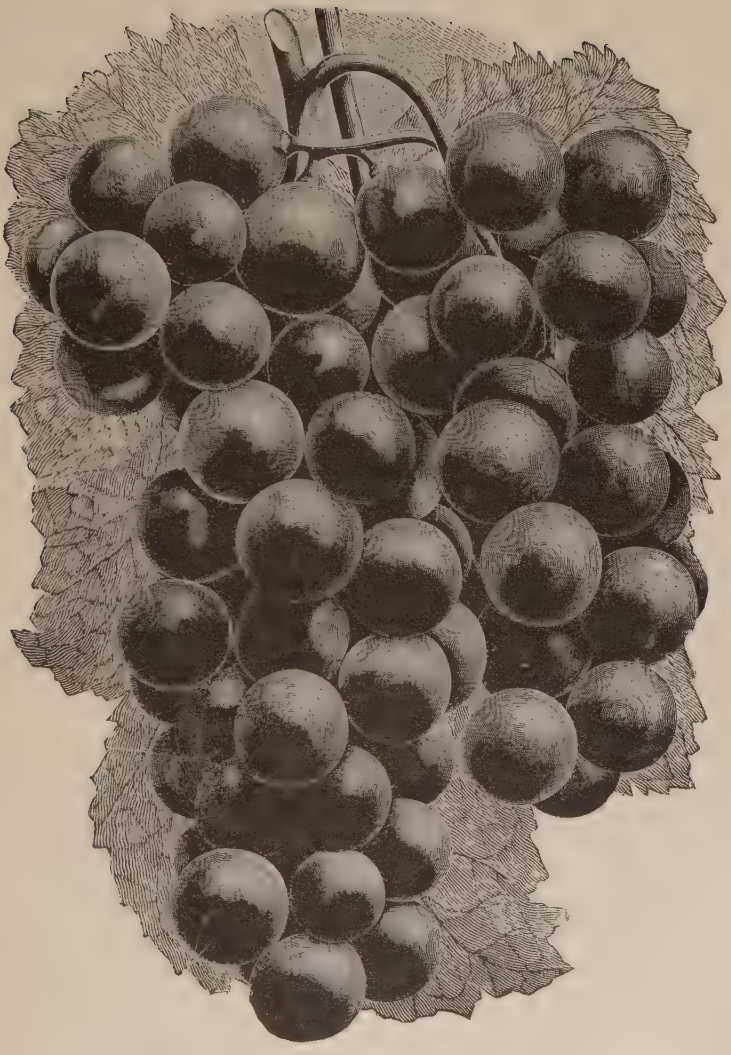
times, asked at the temple of the Gods what she should do to obtain beauty of face. The high priest declared it to be the will of the gods that she should breakfast exclusively on raw ripe apples. This she did and became more beautiful every day so long as she continued the practice. The old priest *did* declare the wisdom of the gods, for we now know that the apple, persistently and wisely used, if taken at the beginning, will cure constipation and other afflictions, and their cure will result in beauty of face.

Apples, How to Eat. Apples, one of the most common and most healthful of all fruits, often become almost a poison to many people merely because they neither know how to select suitable fruit nor how to eat it when selected. Dr. Sawyer, of Baltimore, Maryland, who has spent much time in the study of the effects of the apple upon the human organism, says that he has found hundreds of people who told him they would not dare eat a raw apple; it would make them sick. But after he showed them that by chewing all the virtue out of the pulp and then discarding it, they could enjoy eating apples as well as anyone, they had no further trouble.

Apples, How to Select. Apples for eating should first of all be fully ripe, without being over-ripe, and be ripened *on the tree.* The practice of picking apples green and keeping them till they slowly ripen (rot) is a most iniquitious one. After an apple begins to decay, even though but a small piece of "rot" shows, it is no more fit to eat raw, for the ptomaine poison of the rot has been absorbed partly by balance of the apple. Again, many apples are very full of woody fibre or pulp. All these when eaten raw should be simply chewed and the pulp rejected. In selecting apples for eating, therefore, it is best to select those which have the least pulp and the most juice. They should be fully ripe and full grown. All other apples should be sent to the cider mill or baked or stewed or otherwise thrown on the garbage heap.

Grapes. Grapes, when ripe and wholesome, are plump and firmly attached to the little stems. They are unwholesome if at the *point of attachment to the stems they have become loose and, particularly, if there is a slight discoloration apparent on the grape at this point, or if it has become at all soft.* In either one of these cases it should be rejected as unfit for use.

Grapes are among the most wholesome and most nutritious of fruits. In the archives of the British War Department is the report of Col. McWade, whose corps in India was at one time obliged to subsist for two weeks on grapes alone. It developed that the soldiers stood this diet very well, but after a couple of days all the officers were sick with diarrhœa and indigestion. An official inquiry proved that the officers discarded the skins and seeds of the grapes, while the soldiers ate the whole grape. An order was thereupon promulgated that the officers should eat the grapes entire—skins and all—when they soon recovered, and continued well until food could be provided.



THE WHOLESOME GRAPE.

How to Tell the Wholesome Grape at a Glance

Reducing Instructions (By Diet Specialist)—The obesity problem of the average person is a matter of excess food consumption and inactivity, or eating more than is necessary and exercising less than is necessary.

When the appetite is indulged beyond the body's needs, the surplus is stored up as fat and generally in the tissues least disturbed by muscular action.

If there is a sufficient reduction in the amount of food eaten and increase in the amount of exercise daily nothing under heaven can prevent a loss in weight.

The following diets you may change daily as provided here, or you may choose a single diet and change twice a week or even once a week if you do not require variety.

MENU

SUNDAY

BREAKFAST

One orange
Two slices crisp bacon
One soft boiled or poached egg
One small, thin slice toasted rye bread
(no butter)
Black, sugarless coffee

DINNER

Beef broth (fat skimmed off), one cupful
Roast chicken, moderate serving
Cauliflower (plain)
Lettuce with vinegar dressing
Stewed raisins flavored with lemon
(no sugar)
Black, sugarless coffee or tea

SUPPER

Shrimp or crabmeat cocktail
(with celery, onions and chili sauce or cocktail sauce)
One small slice toasted rye bread or zweibach
Coffee or tea without sugar and cream

MONDAY

BREAKFAST

Baked apple or stewed prunes without sugar
One small, thin slice rye bread without butter
Two eggs poached or soft boiled
Unsweetened black coffee

LUNCHEON

Vegetable soup (enough to satisfy)
Three small crackers

DINNER

Broiled or roast beef, lamb, or fowl
Two vegetables (no beans, peas, or potatoes)
One small, thin slice rye bread
Unsweetened black coffee or tea or buttermilk

TUESDAY

BREAKFAST

Grapefruit
One egg
2 or 3 ounces of lean meat or fish
One slice dry toast
Black coffee without sugar

LUNCHEON

Two or three ounces of cottage cheese
Unsweetened fruit
Slice dry toast
Tea with lemon

DINNER

Meat soup (fat carefully skimmed off)
Lean roast beef (one helping)
One helping either spinach, asparagus, cabbage, or cauliflower, or stewed tomatoes
Unsweetened fruit or half glass orange juice
Fruit salad or combination salad with French dressing

WEDNESDAY

BREAKFAST

Stewed prunes
Baked or coddled eggs
Bran muffins or one piece toasted rye bread
Coffee, black and unsweetened

LUNCHEON

Bowl clear soup
Three crackers
All you want of lettuce or cucumbers with vinegar dressing
Coffee or tea

DINNER

One helping broiled steak or fish
Big helping Brussels sprouts or string beans
One piece toasted rye bread
Coffee

THURSDAY

BREAKFAST

Orange, one large
Two soft boiled or poached eggs
One thin slice graham bread
Black, sugarless coffee

LUNCHEON

One cup bouillon
One soda cracker
Ten stalks asparagus without butter
One raw apple

DINNER

Raw oysters (six)
One slice lean roast beef
One-half cup plain boiled string beans
One medium tomato sliced with vinegar
Salt and pepper
One small slice Brie or Swiss cheese
One small cracker
Black, sugarless coffee

FRIDAY

BREAKFAST

Stewed apricots or prunes without sugar
One poached egg on one thin slice toasted rye bread
One cup coffee with boiled milk and no sugar

LUNCHEON

One cup bouillon
One slice Swiss cheese
One small slice rye bread

DINNER

Broiled halibut steak with lemon
Cauliflower (plain), large serving
Watercress and egg salad with French dressing
One sliced orange
Black, sugarless coffee

SATURDAY

BREAKFAST

Stewed pears or prunes without sugar
One small slice toasted gluten or rye bread
One broiled lamb chop or one small cake
Broiled hamburger steak
Black, sugarless coffee

LUNCHEON

Stuffed egg salad (without mayonnaise)
Spinach with hard boiled or poached egg
Three small crackers
Buttermilk or tea without cream or sugar

DINNER

One cupful vegetable soup
One medium slice lean roast beef, chicken, or broiled steak
Celery or olives or radishes
Stewed or broiled tomatoes or boiled cabbage
Baked apple
Black, sugarless coffee or tea

The helpings of meats and vegetables at dinner are just normal portions and ONE helping only.

Chew your food well and you will require less. Chew to a point of involuntary swallowing. You do not have to count the chews or hold the food forcibly in the month nor make a bore of eating. But you must give up forcing food down in unchewed chunks. Sip liquids.

Drinking water is of great value in obesity treatment as it dissolves and carries out of the body large amount of broken down material resulting from diet and exercise. It helps regulate proper functioning of the kidneys and digestive apparatus. It breaks up the food and helps absorption. The blood pressure is adjusted by drinking water. The "faint and gone" feeling sometimes experienced by persons reducing may be counteracted by a drink of water to increase the volume of blood.

Eat an apple if the hunger pangs get you between meals—or drink water.

Do not sit down for at least a half hour after eating.

Keep the bowels open.

HOW TO GAIN WEIGHT

Undernutrition is the most common cause of thinness. There are two causes of undernutrition—one, not to eating too little food but to not eat fattening foods; the other due to ailments of the digestive organs. Another cause of excessive leanness may be found among that class of people who eat sufficiently and well but who have not learned to take life easily and are consumed with a nervous energy to be forever on the go. For these latter the remedy lies within themselves.

Defective teeth are frequently responsible for constitutional weakness and non-development. Defective teeth make proper mastication impossible and produce digestive troubles, and they are a source of constant poisoning of the body with the pus and decayed matter constantly exuding from them and being swallowed with the saliva and food. They frequently disarrange stomach and bowels and produce chronic ailments.

A first aid to putting on weight is to get ten hours sleep, if possible—never less than eight.

Thin people require an abundant supply of energy foods, or fuel foods—fats, starch and sugar. Butter and oil are the best fats for them, as they are less likely to disturb the digestion. Sugar is a valuable fuel food. It is best taken in sweets at the end of a meal.

The following dietaries furnish so many calories over the required amount of the average individual that, if faithfully followed, are almost certain to result in an improved weight.

BREAKFAST

Grape juice, one cup
Cooked cereal with four dates (large helping); with cream and sugar
Scrambled egg, one-half cup
Toast, one slice buttered thick
Cream, thin, seven-eighths cup or cup of half cream and half milk

LUNCHEON

Creamed chicken (one-half cup) on toast
Lettuce salad with oil dressing and crackers
Vanilla ice cream
Cup of chocolate

DINNER

Cream of corn soup (one cup)
Roast beef, two and one-half slices
Baked potato, one medium
Buttered lima beans, three-eighths cup
Two slices whole wheat bread
Butter, two tablespoons
Baked apple, one large
Cream, thin, one-half cup
Sugar, one tablespoon (scant)

A fattening mixture can be made of one quart of milk to which is added several ounces of cream and several ounces of milk sugar. To be taken as a beverage at each meal.

Thin people should take milk, several times a day either plain, hot, cold, malted, buttermilk or with chocolate. These can be taken with meals or between meals.

Thin people should remember that an extra pat of butter, an extra glass of milk, extra amount of cream or sugar on fruit or desserts all help in gaining weight.

Fat-Producing Foods—Soups: Bean, rice, barley, celery, asparagus, mutton, clam or chicken broth.

Meats: Fat bacon, ham, roast beef or mutton, lamb chops, sweetbreads, sausage, squab, and all game and Hamburger steak.

Vegetables: Potatoes, tomatoes, beans, spinach, onions, beets asparagus, lettuce, with oil dressing. (Plenty of butter and oil should be incorporated in preparing these.)

Farinaceous: Oatmeal mush, hominy, rice, whole wheat bread, cornmeal, cornbread, milk toasts, biscuits and muffins, gems, graham and oatmeal crackers.

Desserts: Sago and rice puddings; tapioca, custards; all cooked fruits with fresh cream and ice cream.

Drinks: Milk, chocolate, cocoa and water. (Olive oil after each meal.)

Thin people should take just enough exercise to promote good appetites.

Exercises—The deep breathing exercises come first in order of importance to the person who wants to gain. They develop the chest. And in a well-developed chest lies the secret of a well-developed body.

Stand before an open window with arms at side; slowly raise arms in outward circle up over head until hands touch, inhaling deeply as this upward movement is made; then slowly let arms fall in outward circle movement back to original position, exhaling as arms are brought down. Do this twenty times at each session. If twenty tires you at first, do it only ten until you can do it oftener without exertion.

Too much cannot be said in favor of swimming. The exhilarating contact with air and water, the healthy strain upon the muscles, the correct position of the body, the removal of the excretions from the skin, the stimulation to heart and blood vessels, the bust development—all make swimming the most ideal and healthful of sports.

Walk three miles a day. It whets the appetite.

HOMEOPATHY.

By W. E. Reed, M. D., Editor of *The Medical Current.*

INTRODUCTORY RULES.

To those unacquainted with the homeopathic system of medicine, a few words of explanation will not be out of place. The theory or law of homeopathic prescribing is founded on the principle "Similia Similibus Curantur" (like cures like); or in other words, a medicine that will produce in the healthy, when given in material doses, certain symptoms, will cure those or similar symptoms produced by some other cause in the sick. Opium produces constipation when taken by a person in health, and will cure a similar condition when produced by disease; but it will cure only a similar condition to that produced by the drug. It will not cure every case of constipation, and will not cure the condition caused by the drug itself. Hence the necessity of making a careful selection of the remedy, and when this is done, the results are most certain to be satisfactory.

Selecting the Remedy—As homeopaths never prescribe for diseases by names, and only by symptoms, the selection of the remedy becomes more difficult than it otherwise would be, if one were to say such a remedy is good for such a disease; but there are a few general rules which may be of aid. The premonitory symptom of all acute fevers is a chill, and of many conditions of inflammation also. Aconite stands nearest to the specific for this condition, and where there is a chill, it is safe to begin the treatment with Aconite. If the disease progresses and is not arrested by the Aconite, and becomes defined, then seek the remedy among those under the heading of whatever symptom the disease develops. With the exception of scarlet fever, this rule holds good. In this disease Belladonna will be the nearest to the specific and will correspond to the *throat symptoms* more closely. Belladonna will act as a preventive during epidemics.

It is safe to begin the treatment of all acute diseases with Aconite. Relief should follow in twelve hours at the most.

Study Symptoms Carefully—During this time, if the symptoms point to any disease, study the indications for the rem-

edies carefully; compare them with the patient's symptoms, and *select that one which corresponds most closely to the patient's symptoms*; this will be the homeopathic remedy. Give it with confidence; *allow it time to act*, and the result will be very gratifying. This treatise is arranged as far as possible with the view of brevity and clearness, and only such indications are given as are *striking* or *characteristic*, and particular attention is called to symptoms where *italics* are used, these being characteristic symptoms of the remedy, and it is from these symptoms that the remedy is to be particularly selected.

A careful perusal, now and then, when not needed in sickness, will render the method familiar to all, and this we would recommend. If the disease progresses and the symptoms become alarming, send for the best homeopathic physician, and tell him what you have been giving.

REMEDIES, DOSE, ETC.

Procure your remedies of a reputable homeopathic pharmacist, or those prepared by some reputable pharmacist, in the *Sixth Dilution.* A tincture means the strongest preparation and is not safe to use. If pellets are preferred, No. 35 or 40 saturated with the Sixth Dilution.

Dose. If of the dilution, four drops in four tablespoonfuls of water; of this take two teaspoonfuls at a dose. Of the pellets take four. The frequency of the dose will depend on the condition of suffering. In acute pain the remedy should be given as often as every thirty minutes, always lengthening the interval between doses as improvement advances. In ordinary fever, coughs, colds, etc., every two or three hours; in chronic cases one dose per day. Medicine should be given half an hour before eating, or an hour after.

Glasses and spoons should be perfectly clean and should never be used for more than one medicine without having been thoroughly cleansed. Do not change corks from one bottle to another and never return powder or pellets to vial after handling them.

DIET.

Avoid highly seasoned food, condiments, coffee, tobacco and alcoholic stimulants, pastry, fats and oils and confectionery. Use beef and mutton, and when the patient can digest it, beef and mutton fat. When solid food cannot be taken, mutton broth, cooled and all the fat skimmed off, will be perhaps the best. Gruels made from rice, farina, oatmeal, barley or wheat flour may be taken.

Of the artificial foods Murdock's Liquid food and Bovinine for animal foods; Mellin's, Horlicks, and the Wells, Richardson Co.'s Lactated Foods, for farinaceous food. For drinks, water, weak black tea, mucilaginous drinks such as gum arabic water, etc.

HOMEOPATHIC GLOSSARY.

	ABBREVIATIONS.
Aconite Napellus	Acon.
Antimonium Crudum	Ant. Crud.
Arsenicum Album	Arsen.
Apis Mellifica	Apis
Arnica Montana	Arn.
Baryta Carbonica	Baryta Carb.
Belladonna	Bell.
Borax Venene	Borax.
Bromium	Bromim.
Bryonia Alba	Bry.
Cactus Grandiflorus	Cact. Grand.
Calcarea Carbonica	Calc. Carb.
Camphor	Camph.
Capsicum	Caps.
Carbo Vegetabilis	Carbo Veg.
Causticum	Caust.
Chamomilla	Cham.
China Officinalis	China.
Cina	Cina.
Croton Tiglium	Crot. Tig.
Coffee Cruda	Coff.
Colocynth	Coloc.
Cuprum	Cap.
Dulcamara	Dulc.
Drosera	Dros.
Gelsemium Semp	Gels.
Glonoine	Glon.
Graphites	Graph.
Helleborus	Hell.
Hyoscyamus	Hyos.
Hepar Sulph	Hepar.
Ipecacuanha	Ipec.
Ignatia	Ignat.
Kali Bichromium	Kali Bi.
Kali Nitricum	Kali Nit.
Lachesis	Lach.
Lycopodium	Lye.
Mercurius Protoiodide	Merc. Proto.
Mercurius Corrosivus	Merc. Sol.
Nux Vomica	Nux Vom.
Natum Muriaticum	Natr. Mur.
Nitric Acid	Nitr. Ac.
Opium	Opi.
Phosphorus	Phos.
Platina Metallicum	Plat.
Pulsatilla	Puls.
Podophyllum	Pod.
Rhus Toxicodendron	Rhus Tox
Rheum	Rheum.
Sabina	Sabina.
Secale Cornutum	Secale.
Sepia	Sep.
Stannum	Stann.
Spigelia	Spig.
Spongia Tasta	Spong.
Silicea	Sil.
Stramonium	Stram.
Sulphur	Sulph.
Tartar Emetic	Tart. Em.
Veratrum Album	Verat. Alb.
Zingiber	Zing.

DIVISION TWENTY.

XXTH CENTURY HEALING.

SUGGESTIVE HYPNOTISM, PALMISTRY, MIND CURE CHRISTIAN SCIENCE, ETC.

BY DR. L. F. JORDAN.

MENTAL THERAPEUTICS.

The phenomena of animal magnetism, mesmerism or hypnotism were discovered by a doctor of Vienna, Austria, named Mesmer about the year 1770. He employed the natural powers given him in the healing of disease, and for many years practiced with great success at Paris, France, where he became very popular. After his death, however, the whole matter was abandoned, largely because a committee of special scientists, who had investigated the phenomena, reported that there was nothing wonderful about the things done, and that they could all be produced in the patients by "suggestion." The public, who had looked upon it as a supernatural power, were disappointed and refused to entertain what was now considered a fraud, while the doctors abandoned it because the then newly discovered anesthetic, chloroform, took up all their attention.

It was only in recent years that the subject was again investigated, and the Academie Royale de Medecine, at Paris, declared that a new field was opened to physiological science. A committee of the Royal Society testified that they had seen persons who, while in the hypnotic sleep, could unerringly diagnose medical and surgical cases that baffled the best physicians, and correctly foretell the result of the disease.

In 1842, at the Royal Medical and Chirurgical Society of London, the account was read of a patient who had suffered for five years with a disease of the left knee, so that the slightest motion of the joint caused extreme pain. He was mesmerized or hypnotized by Mr. W. Topham and operated upon by W. Squire Ward, surgeon, who performed an amputation of the thigh. During the operation, which lasted twenty minutes, the patient looked on calmly, showing absolutely no evidence of pain, although perfectly conscious. He recovered perfectly and no bad symptoms whatever, followed.

In 1898, Willie McCabe, 4 years old, of 532 East 76th street, New York, having received a bicycle, spent an entire day in struggling to ride it, meeting with numerous falls. At night he went to bed feverish, and next morning had violent convulsions. After medi

cal examination he was taken in an ambulance to Bellevue Hospital. The doctor gave the suffering lad morphine, but the drug had no effect. Dr. Carey, the chief of the medical staff, decided to try hypnotism.

"Willie! Willie!" he shouted, "now watch my fingers." The doctor kept him looking at the fingers, held close to the boy's face, for five minutes. Then the doctor lowered his fingers and said: "Now, Willie, all your pain is gone and you will be able in a moment to ride your bicycle."

The effect of the suggestion was marvelous. The tense muscles began to relax, the boy straightened out while a smile broke over his face that had before been drawn as if with torture.

"Now, Willie," said the doctor, "it is time to go to sleep." In a few moments the boy was sound asleep. In ten minutes he had been cured of convulsions, which, by any other means, would have kept him ill and in pain for weeks. Scores of similar and some much more remarkable cases could be given.

One of the most marvelous evidences of the control over the body, and especially the muscular system, is shown in the experiments on rigidity, *i. e.*, making the body rigid. Prof. de Laurence states that by simply making passes along the arms and limbs of Miss ——, a slender and tall young lady of small physical power, while she was standing erect, by merely suggesting to her that she was now perfectly rigid, like a stone image, caused her to become so stiff that when, at the professor's request, she was placed with her head on one chair and her feet upon another, three young ladies, whose combined weight was over 400 pounds, stood upright upon her prostrate form without so much as bending it in the least. When conscious, it would have been utterly impossible for her to have supported the weight of even one person. This same experiment has been many times performed with different people, and with equal success. Of course, this rigid state cannot be produced in every person, simply because there is a limit to the hypnotiser's power over others, but it has been done often enough to prove beyond doubt that the power exists. It goes to prove also that through hypnotic suggestion, the organs of the body can be made to do things otherwise impossible. In other words, the ill-adjusted and the sickly can thus both be healed.

Hypnotism. The term hypnotism, from a greek word signifying sleep, was first introduced by Dr. Braid of Manchester, England, who discovered that by placing a bright object before the eyes of a person and causing him to gaze intently upon it for some time, he could be thrown into an apparent sleep during which he would act out whatever suggestion was made to him by the doctor's mind.

The truly wonderful antics of persons while in this hypnotic state, and the marvelous powers often shown by them, have been so many times exhibited, both publicly and privately, that they are more or less familiar to everybody, and no intelligent scientific student in the world to-day will deny the extraordinary human powers demon-

strated by these hypnotic experiments. Prof. Carpenter for many years gave public exhibitions in many cities and towns, where he would hypnotize well known local residents and then make them believe, for instance, that it was very cold. Their shivering and coat-buttoning was ludicrous enough. But when he suggested to the subject that he go warm himself at yonder stove, at the same time pointing out some young lady friend, perchance the subject's best girl, and to watch him warm his hands and turn to warm his back exactly as if she were a "hot stove" on a very cold day, always convulsed the audience with laughter. Another favorite suggestion, often made to some slender and delicate young fellow, was that some buxom lady in the audience was an infant needing to be taken up and soothed. The result can better be imagined than described. The marvelous feature about the case was the ease with which the weak young man could handle a weight that would have staggered him had he been conscious. Another popular trick was to make some extremely modest and retiring young man imagine himself to be a great orator addressing a throng. His confidence, his gestures and his good language would have been absolutely impossible if he had not been in the hypnotic trance.

How to Hypnotize. The first essential is the concentration of mind, a power natural to some, but which can be acquired by persistent practice by almost everyone. The hypnotizer must have a dominant thought of mastery over his subject and concentrate his *whole* mind on that thought. Then by holding some bright object, or even simply his fingers directly before and a little above the subject's eyes, repeatedly bidding him to gaze intently at the object presented, until he sees the pupil dilate and a glassy appearance come into the eye, he can then say, "Now, sir, shut your eyes. You can't open them any more," and the subject is hypnotized and will act upon most suggestions made.

The Nancy Method. H. Bernheim, M. D., professor at the great medical school at Nancy, France, and a firm believer in hypnotism, gives the following as his method of hpynotizing. I first disabuse the patient's mind of any idea of magnetism and explain that there is nothing hurtful or strange about it. When I have thus banished fear from his mind, I say, "Look at me and think of nothing but sleep. Your eyelids begin to feel heavy. Your eyes are tired. They begin to wink. They are getting moist. You cannot see distinctly. They are closed." Some patients close their eyes and are asleep immediately. With others I have to repeat, lay more stress on what I say and even make gestures. I hold two fingers before the patient's eyes and ask him to look at them or pass both hands before his eyes, or persuade him to fasten his eyes upon mine, at the same time endeavoring to concentrate his attention upon the idea of sleep. Then I repeat as before and say finally in a commanding tone "sleep!" Some are rebellious. I command them to be calm. I speak continuously. I speak only of drowsiness, of sleepiness. "That is

sufficient" I say finally, to gain a result. I may have to repeat the words given above though this is usually effective.

It is not true that the person hypnotized becomes the slave or is completely in the power of the hypnotizer. The oft repeated statement that the subject loses all power of control so that if he be ordered to commit a crime he must do so, is not well substantiated. The moral nature of the subject has never yet been successfully controlled by hypnosis. The stories told on this subject are not well authenticated. The hypnotized subject, however, usually continues amenable to suggestion until with a clap of the hands he is ordered to awaken, when he does so as if from sleep. He may be put to sleep with instruction to awaken at some hour in the future. He will immediately pass into a sound slumber, but will awaken and be normal at the hour specified.

Scoff at Hypnotism. It is still popular in many quarters to scoff at hypnotism. But no modern scientist who has investigated its wonders, scoffs, nor indeed doubts, any longer. The evidences of its power are too plentiful and too well authenticated to deny its supreme usefulness as an aid to medical skill and to allay suffering, and we are just beginning to discover its practical application in mitigating the sum total *of human* ills.

Healing by Mental Suggestion. Prof. Thomson J. Hudson, of Boston, author of "The Laws of Psychic Phenomena," and other books, relates the case of a man who had suffered for years with inflammatory rheumatism and nervous attacks, his sufferings being so intense that one of his hips had been drawn out of joint, leaving one leg some two inches shorter than the other. Through friends it was decided to treat him by mental treatment administered during sleep. The treatment began May 15, 1890. Only two friends knew of the proposed experiments, and they were requested to note the time when the experiments began. Some months later one of these two met the invalid and was surprised to find him well. Asked when he began to improve, he answered, "About the middle of May." After that he has remained well and been able to attend to his business of journalism. "Were this a single instance," Prof. Hudson adds, "it might be considered a mere coincidence. But more than a hundred experiments have been made by this process by myself and two other persons, and *not a single failure has thus far been experienced.*"

Method of Treatment. Prof. Hudson, by long experimenting and reasoning, arrived at the conclusion that the "*best possible condition for the conveyance of therapeutic suggestions from the healer to the patient is attained when both are in a state of natural sleep; and that such suggestions can be so communicated by an effort of the will on the part of the healer just before going to sleep.*" The theory is that the conscious mind being at rest during slumber, the natural mind, sometimes called the "subjective" mind, which controls the involuntary actions of the bodily organs, can be, and is, influenced by

suggestions from other minds. The same could be done during wakefulness if the patient could place himself in that same passive, receptive attitude that he perforce takes during sleep. As it is, a large share of the cures made by our best physicians are made, not by the medicines, but by the power of suggestion born by the physician's confidence and the patient's faith. Every one has experienced the ready helpfulness of a visit from some doctor in whom he had implicit faith, when another, and possibly fully as good a doctor, failed to give relief.

Guiding Horses by Will. Every expert horseback rider knows that he can guide his horse without the bridle. The writer, when a youth, on more than one occasion won a wager that he could make his horse, when coming to a fork in the road, take either branch road without touching bridle or in any other way guiding the horse than by simple strongly willing the horse to take the desired road. Even when it required the horse to take the opposite from an accustomed road he never failed. Old horsemen on the plains know of this peculiarity without attempting to explain it, and know, too, that when lost this very power often prevents speedy return to the trail because the rider unconsciously influences the horse to turn, when if left to itself the natural instincts of the horse would lead it in the right direction.

The explanation of this power is that the unconscious mind of the horse, which directs its actions, is moved by suggestion from the directing mind of the rider, and the horse simply obeys a natural impulse which it has not the mental ability to resist. The secret of success in mental therapeutics lies in the passive state of mind—a state greatly aided by faith—which enables the natural or subconscious mind to receive and act upon proper suggestion.

Auto-Suggestion. The greatest possible benefits are obtainable through self-treatment on the same principle and by the same methods as are used by the hypnotist or the mental healer. If we can but conceive that our conscious and subconscious minds make us in reality two minds—two persons—the conscious or objective mind treating the subconscious or subjective mind which in turn treats, through its nervous control, the affected organs, it will not be so difficult to comprehend. The easiest and most positive benefit of auto-suggestion is in warding off sickness or disease.

Fundamental Principle. The fundamental principle to be always kept in mind is that the unconscious mind (or mental force) has complete control of all the functions and organic acts of the body, except as it is started in new directions by the conscious mind (or mental force). The proverb that "if a man tell a lie often enough he will come to believe it true," is eminently true of our physical ailments. The man who *thinks* he will take a contagious disease, is ten times as apt to become ill as is the man who *thinks* that he will escape—will keep well anyhow. To simply, in the mind, deny the power of disease to obtain the mastery, is the greatest agent known to-day in warding off disease.

Chronic Diseases Can Be Cured. Professor Charcot, the great French scientist, once said that by persistent mental suggestion that the cure is now begun and going on, and by the cultivation of a confident belief in the fact, every chronic disease known can be cured. The *only* obstacle lies in the patient's lack of confidence and lack of a persistent *mental attitude* of belief and expectation. It has been proved that the better way, usually, is to express the suggestion by spoken words, repeated and persisted in. Colds, constipation, grip and other diseases have been repeatedly cured by this means alone.

Healing Shrines. Thousands upon thousands of chronic invalids have been permanently cured at the grotto of "Our Lady of Lourdes," in Southern France, simply because of the long mental attitude of hope and expectation that preceded their appearance before this famous shrine of the great Catholic church. It is really a cure by Divine help, because the Divinity is the author of the natural law which makes all such cures possible. By imitating the conditions, and never for one moment allowing one's self to lose hope, expectancy and trust, every individual sufferer can make a shrine like unto "Lourdes" of his own home. It is equally true that failures are due to loss of faith and effort, because immediate results are not apparent.

Faith and Prayer Cures. That genuine cures have been and still are being made by prayer and by a childlike and absolute faith cannot be denied, however skeptical of the efficiency of the method we may be. In view of what has been said, it is evident that the cure is due to the effect of the suggestion to the subconscious mind while in the most receptive attitude brought about by the concentration due to the continued prayer or state of faith.

Miracles Possible. The Rev. Edward Macomb Duff of the *Living Church*, the leading religious newspaper of the Protestant Episcopal Church in America, says, in commenting on the reports of the British Society for Psychical Research, of which the Bishop of Carlisle is a member: "According to these evidences, the human mind in a certain condition of passivity—sometimes in hypnosis and sometimes in a state superficially indistinguishable from normal wakefulness—manifests certain faculties and powers which are supersensory and supernormal, and at the same time manifests singular limitations and weakness, in that it becomes the slave of the suggestion. The bearings of these facts upon Christian evidence are, it seems to me, in part self-evident, and, for the rest, apparent upon a little reflection.

"The first self-evident conclusion derivable from the facts is, I think, that the existence of a superphysical or of a supersensory, becomes a fact resting upon scientific demonstration." This, of course, is fatal to skepticism of the materialistic kind. He also states that it makes the miracles of Christ and the apostles more probable, as it is proven that the miraculous is taking place every day.

Christian Science. The theory of the Christian Scientist healer is that matter is unreal, that, therefore, our bodies are unreal and that

there is no such thing as disease; that the latter only exists in the mind, which is the only thing that is real. The proposition that our bodies are composed of matter, but that matter has no existence, is, on the face of it, too absurd to admit of argument. But the fact that the believers in Christian Science are numbered by the hundreds of thousands, and that the cures performed by them are of daily occurrence and often almost miraculous, makes it a phenomenon worthy of study. Here, again, it may be readily understood, if the control of the subconscious mind over the bodily functions and in turn its susceptibility to strong suggestions, either from another mind or from the patient's own conscious mind, is admitted. The very attitude of mind and the oft-repeated statement of the unreality of matter, and the utter impossibility of disease, produce exactly the conditions necessary for the influence of suggestion. A sort of self-hypnosis is produced with the same effect frequently, as in hypnosis induced by the hypnotizer. The truth underlying all these phenomena is of the highest importance to the entire human family, and when once universally studied, understood and practiced, will make the doctors' business a meager one.

The Natural Mind. The very diligent study in the past few years by our most able thinkers and experimenters, has proved beyond reasonable doubt the intimate relation between the natural mind and the functions of the body.

We say the *natural* mind to distinguish between the inborn capacity and the conscious mind which is made what it is by education and outside influences. The *natural* mind is the one that rises to action during our most quiet moments, during delirium and during sleep. It is what enables the sleep-walker to do things he could not do when awake.

Science—Christian or otherwise—attempts to make it possible for us to give ourselves up to the control of this natural or often called "subjective" mind. Everyone who has had dealings with the insane has noticed how, for instance, the dyspepsia from which they suffered before they went "out of their mind," as we say, suddenly disappears. The insane invalid will eat a hearty meal with impunity which would have thrown him into convulsions had he eaten it before he "went out of his mind." Why? Science says the *natural* mind now controls the functions of the body and orders the stomach to regain its tone through its power over the nervous system. Similarly with other ailments which are due to a wrong adjustments of the various parts of our delicate organism.

The Electric Circle. Wonders can be accomplished if from six to twelve people will sit in a circle holding one another's hands and keeping perfectly still for from twenty to sixty minutes and all constantly thinking about some one definite thing agreed upon beforehand. If that definite thing is the recovery of one of the number from a severe headache they will nearly always succeed. Always, in fact, unless the headache is caused by a too full stomach which has fermented or soured its contents and wants to throw it out. If it is the recovery of a friend from fever it often has a truly marvelous ef-

fect. If some of the members of this circle are troubled with excessive nervousness or are peevish or angry, or completely out of temper with everything, the peace and kindly feeling that will soon take the place of the irritability is truly wonderful and alone well worth holding the circle for.

The best time for a circle is at night in a mild or dimly lighted room in the quietest part of the house. After many sittings and especially if there is a good understanding between the several members—no skeptics among them whose attitude of mind acts as a resistant—and if they all honestly concentrate their thoughts upon one single thing, previously agreed upon, they can generate enough electric force to lift a table. There are numerous instances on record where such a circle, concentrating their thoughts for some time in perfect quiet upon the idea of the immediate recovery of some absent sick friend, succeeded in causing that friend to suddenly exclaim, "I am getting better, I think, I feel ever so much better," and upon investigation actually find the fever rapidly going down, the pulse approaching the normal and all the strong symptoms of the disease abating. Nor are there wanting instances of absolute cures thus affected in a few moments.

Telepathy Applied to the Cure of Disease. Mind cure is talked of and practiced by an increasing number in almost all parts of the country. In Florida a society headed by some Boston women, has founded a flourishing colony whose members are devoted to the mind cure. And it cannot be denied that apparently they meet with considerable success. Everybody knows how when one has "something on his mind," it affects him. Often the ordinary operations of nature are checked by it. The same is true of the emotions (which are but a part of mind). Nearly everyone knows of some family where a daughter through baffled love changed quickly from a buxom healthy physique to a thin and worn looking one. If the body thus responds to the *accidental* influences of mind, why should it not respond equally well to *pre-determined conscious* efforts of the mind?

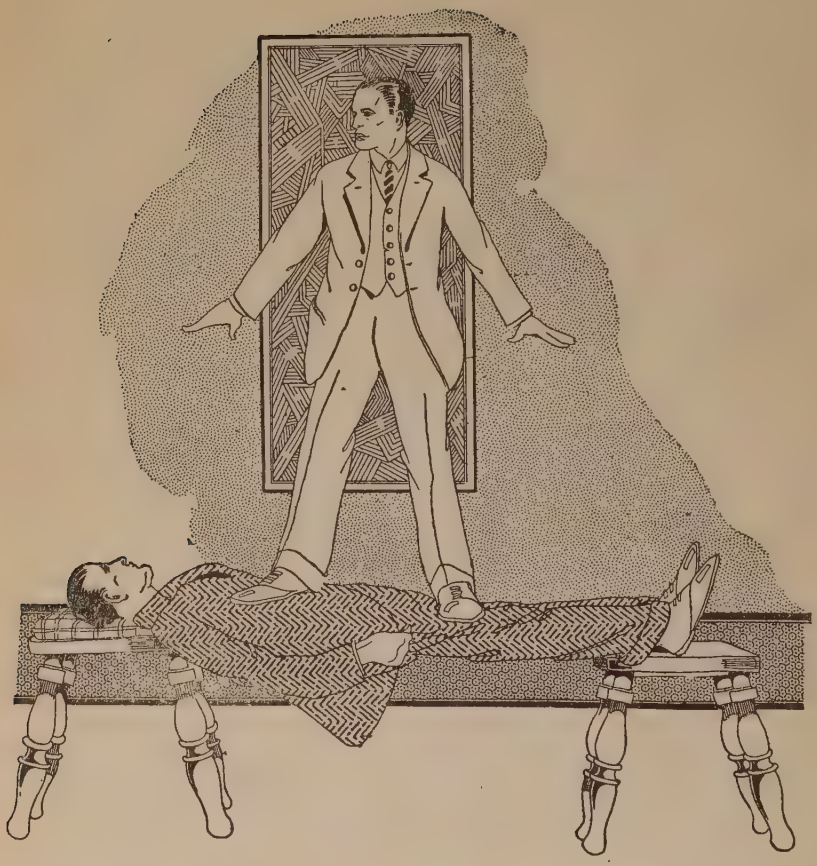
A very simple experiment will enable most persons to display telepathic power. Let him be securely blindfolded by thick folds of cloth over each eye held on by a kerchief or towel. Now let several persons, including the blindfolded one, join hands in a circle From a pack of cards turned face down, let one be selected at random, being careful that no other card is exposed. Now place the selected card where all can plainly see it. Let them continue to gaze on it and fix their minds on the card and keep perfect silence. If the blindfolded one will remain perfectly passive, simply watching for visions, he will soon begin to see shapes passing before his vision which by and by will develop into something more or less distinct. It may be a heart floating in space (ace of hearts); it may be that his mind will bring a vision of three clubs or of real diamonds arranged in the form of the spots on the card. He will at once name the card. If honestly performed he will nearly always tell correctly.

The London Society for Psychical Research, in their published volume entitled "Phantasms of the Living," reports a large number of most carefully investigated instances of unmistakable telepathic communication. One Sunday evening in November, the writer states, having been reading of the great power of the human will, I resolved with the whole force of my being to make my form visible in the front room of a house at 22 Hogarth street, Kensington, London, where two ladies of my acquaintance slept. I had not mentioned my intention to make the experiment to any one. The time when I had determined to appear was 1 o'clock A. M. With this on my mind I fell asleep and woke next morning unconscious of anything having happened. Three days later I called on the ladies, when the elder one told me, without my having alluded to the subject, that she had been much terrified on Sunday night by perceiving me standing at her bedside and that she screamed and awoke her sister who also saw me. When I asked her what time it was when this occurred, she replied: "About 1 o,clock in the morning."

Many people would have imagined that these ladies saw a ghost or a spirit. But that by no means follows. What they saw was due to a mental picture caused by the strong willing of the individual just before he went to sleep. It was simply a telepathic communication to the ladies' minds. Innumerable instances of a similar nature are recorded.

Emanuel Swedenborg, the founder of the Swedenborgian church, was remarkably gifted with telepathic and clairvoyant powers. On July 19, 1754, returning from a visit to England, he landed at Gottenburg, stopping with a friend. At 5 P. M. he rushed into the drawing room, pale with dismay, and announced that fire had just broken out in Stockholm and was burning fiercely; that he feared for the safety of his home and family. A little later he sorrowfully stated that the home of a dear friend had just been reduced to ashes. At 8 o'clock he joyfully exclaimed that the fire was under control before it reached his house. The news, of course, soon spread through the town, but very few believed it, for Stockholm was 170 miles away, and there were no telegraphs in those days. Two days later the royal courier arrived and brought the news of the fire, which had occurred at the very hour when Swedenborg said he saw it. He was then seventy-two years of age. Twelve years later he was again in England, and sent word to Wesley, the founder of Methodism, that he wished to make his acquaintance. Wesley sent word that he was about to start on a journey, but on his return in six months he would be glad to meet the great Swede. Swedenborg sent back the reply that it would then be too late as the 29th of March next was the date of his death. He died on March 29 following.

Equally plentiful are instances where patients were treated successfully by telepathic suggestion, even though vast distances apart. The instances are most numerous among relatives or close friends, or those who are *en rapport* with one another. Rheumatism, neuralgia,



SUGGESTIVE HYPNOTISM

The science applied to the cure of disease.

Methods of hypnotizing. See page 961.

How such wonderful feats as the above can be performed is explained on page 959.

dyspepsia, sick headache, liver complaint, chronic bronchitis, paralysis and many other diseases have thus been cured.

Conclusions. There can be no longer any reasonable doubt that a subtle power exists somewhere within the human organism by means of which sickness and contagions can be to a large extent prevented and many diseases and ailments cured. Nor can it be denied that in order to start this subtle power in operation extraordinary means are usually required. The number of instances thus far carefully investigated seem to prove that the success of healing by faith, of Christian Science, of hypnotic suggestion, of telepathy, of the numerous isms like Dowieism, Teedism, Kneippism, etc., as well as the special success of individual practitioners of the allopathic, homeopathic and other schools of medicine, all depend upon one and the same thing. And that is not primarily the medicine administered, not the application of the water or the oil, not the laying on of hands, not the walking barefooted on the grass wet with dew or frost, not the pilgrimages, none of these, though all have their places and their influence, and hence may not be wholly condemned—it is not these that cause the cure but an intuitive power of the subconscious mind which is called into action by these various and very different media. Somehow in our present groping, materialistic condition some one of these various mediums seem to be necessary to enable the soul to control the functions of the body. Abundant experiments have proved that it is possible to accomplish the same thing by strong intelligent and continued efforts of the will.

SCIENCE OF THE HAND.

Once in every seven years, physicians tell us, the body is completely changed. This change of course goes on all the time. Particles are constantly being destroyed by friction or wear, by accident or by decay and as rapidly new particles take their places. In seven years all the body will have been thus changed and a similar body will have taken its place—similar except for the alterations caused by the effect of the mind. Everybody knows how the lines of care creep into the face, or how a morose and gloomy disposition soon shows itself in the countenance. We notice the faces of our friends and associates and read there joy or distress, health or illness, quickly enough. We might quite as readily read the same thing in the hand if we were equally observant of it. The hand is being constantly used to carry out the thoughts of the brain. Students of the hand soon observed that certain characteristic lines and certain slight fleshy risings called mounts, were found in all hands and that these varied according to the inherited condition of the person's body and his own habits of thought. We say his *thought* instead of his acts because thought always precedes acts. It was also observed that certain diseases and certain lines in the hand always went together. Also that abnormal tendencies, such as the tendency to destroy, or to commit

murder, to steal, or the tendency to insanity, idiocy, etc., were always accompanied by an abnormal disposition of the lines, and, furthermore, that these unnatural arrangements of the lines were always alike, or nearly so, in each and every person having the same or similar tendencies. The students of the hand soon learned to tell with unfailing accuracy the tendency to lunacy, or to kleptomania, or to consumption, or to heart disease and many other conditions, by simply seeing the hand and no other portion of the person whatever.

In the normal hand of every ordinarily healthy person are found three primal lines which together describe an imperfect capital M. One line begins about the middle of the outer side of the palm midway between the base of the thumb and forefinger. It extends downwards in a semi-circle, ending about the middle of the base of the thumb, or where the hand joins the wrist. This is called the line of life, because its perfections and imperfections are directly proportioned to the natural physical conditions which tend to health and life or disease and death.

The next line which, beginning at nearly the same place as the line of life, extends more or less directly downward across the palm, is termed the line of the head. Its development has been found to correspond closely to the mental development and capacity of the individual. The third line begins at or near the base of the forefinger and extends in a curve downward across the palm, curving toward the base of the little finger. This is called the line of the heart and indicates the strength or weakness of the affectional nature.

The experienced palmist can unerringly tell, for instance, such things as whether the person was born one or more months before his or her time, and at what date in life serious illness or misfortunes have befallen them, and can, without fail, tell the general temperament of the person and how he has in the main hitherto conducted himself. And all this not by any secret power, but simply because nature has written in the hand the record indelibly in lines and "crosses," in "squares," in "islands," in "spots', and in "branches," and anyone who has learned this alphabet can read the history as he can a page from a printed book. Thus, for example, where little hair lines are found branching off or adhering to the line of life, it has been found that this always indicates a dissipation of the vital powers at about a date in the life corresponding to their position on the line, appearing at the end as they so often do, they show the breaking down of vitality in old age. If this line extends well out into the palm and is long and of good color, this in itself indicates robust strength and long life. If, on the contrary, it follows closely the base of the thumb, the physical structure is not good. The shorter the line the shorter the life.

The Line of Life. This line should be long, narrow and deep, without break or crosses of any kind. It then indicates long life, health and vitality. But if broken in one hand and unbroken in the other, it indicates some serious illness. If broken in both hands it indicates a short life. If, at the beginning of the line, it is broken into

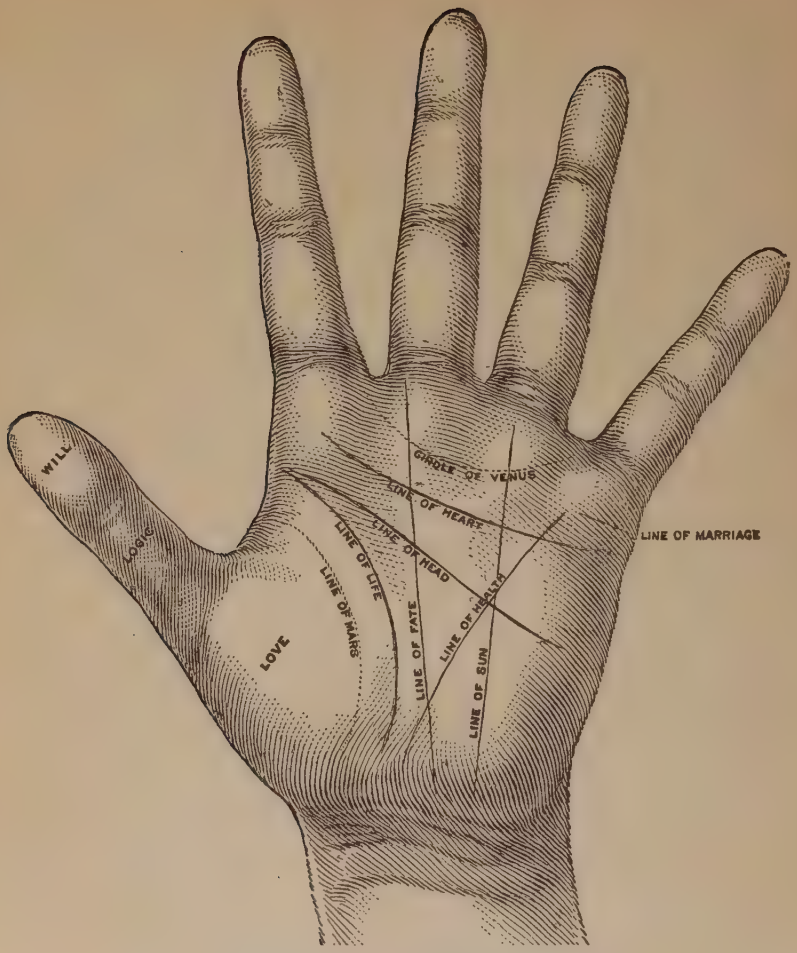
short connected links, like a chain, it proves ill health in early life; if these appear at the end, it denotes disease towards the latter part of one's life.

Line of the Head. This line may start from a point near the base of the forefinger, or it may start at the same point where the line of life starts, or it may rise in the line of life and extend down across the hand. If the first, and yet touching the line of life, it denotes mental vigor, daring and ambition, especially if long. If it rises where the line of life starts, and very close to it, it indicates a cautious, sensitive, nervous temperament. If it starts within the line of life and crosses it, this indicates a fretful, worrying, inconstant temperament and less mental power. A double line, which is very rarely found, is a sure sign of brain power. It is found in the hand of such men as Gladstone, Disraeli and Newton. If the line is broken in two on both hands, it indicates some serious accident or derangement of the mind.

The normal position of this line is directly down across the center of the palm. If it shows an abnormal curve toward the wrist it is a certain sign of abnormal mental condition. Such persons are apt to go insane. If this is noticeable in a child's hand, it may grow to maturity without any unnatural symptoms, but whenever some severe mental shock comes, such a person is sure to become mentally unbalanced. The hand of a natural born idiot is remarkable for the downward curve of this line and for the number of little links or "islands" in it.

Line of the Heart. This line begins either in the thick prominence or "mount" at the base of the forefinger, or between the first and second finger, or at the base of the second finger, and extends in nearly a straight line across the hand. This line indicates the strength or weakness of the affections. If it begins with a forked line in the mount below the forefinger, it is a sure sign of an honest, strong, affectionate nature. If, however, this line rises in the prominence at base of second finger or divides with a fork here and the other towards the first finger, it proves that the person is jealous, or sensual and fickle. It has been observed that in persons who have contempt for the opposite sex this line is always broad and looks a little like a chain, while in those having deep and permanent but subdued passion, this line generally rises between the first and second finger, is narrow, and has no very marked color.

Other Lines. Besides these principal lines there are a number of lesser lines, each having its special meaning. Thus there is the "line of fate" extending down the center of the hand upright. When this line rises in the center of the wrist and extends up to the base of the second finger, it is considered as an indication of a successful career. There is also the "line of health" which extends downward from near the base of the little finger, but is usually faint and sometimes hard to find. If it is distinct and joins the line of life the point of junction indicates the time of death from natural causes. It is a



SCIENCE OF THE HAND.

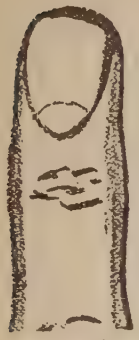
How the skilled palmist can read in the palm of the hand the story of one's past life and foretell sickness and future events.

Left hand shows traits of character you were born with. Right hand shows how your life has changed this.

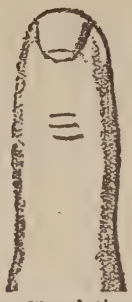
Throat Trouble.
1

Bronchial Affection.
2

Lung Trouble.
3



Consumption.
4

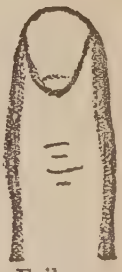


Bad Circulation.
5

Heart Disease.
6

Angina Pectoris.
7

Paralysis.
8



Epilepsy.
9

The above drawings show characteristic types of fingers and nails which indicate in the possessor a tendency to weakness or disease.

sign of good health to be without this line. There is also the "line of the sun," which starts in the middle of the palm and rises towards the base of the third finger. Its prominence is indicative of brilliancy and of a sunshiny temperament.

People who are by nature intensely nervous, easily worried and excited, usually have the entire hand covered with a multitude of fine lines, and if this sign appears in a child's hand, such child should receive more than ordinary careful training. The opposite is also true, for phlegmatic, dull people have few lines in the hand. The color of the palm is also important, for there are more nerves in the hand than anywhere else, and more in the palm than any other part of the hand. A pale or almost white palm is always found in extremely selfish people, while a delicate pink denotes a hopeful sanguine temperament, and a red color robust health, quick temper, animal spirits, etc.

SHAPES OF THE HAND AND FINGERS.

Much of a person's character is shown in the shape of the hand. There is the "square" or useful hand that accompanies the practical matter-of-fact worker in whatever line. The "spatulate" or moderately square hand with fingers more or less curved, sometimes the thumb bent back, and indicating a nervous active person. The "philosophic" hand with its long tapering fingers often knotty on the knuckles and belonging to people who love mystery or who are students in whatever sphere of life they may be placed. The "conic" or artistic hand is medium sized, the fingers thick at the base and tapering towards the ends. Such people are apt to be impulsive and are guided by instinct more than reason. If in addition, on such a hand, the line of the head slopes towards the lower outside corner of the hand it denotes the typical artist.

The Thumb. Most important, perhaps, is the thumb. Every manager of asylums for the feeble minded will agree as to the generally weak and poorly developed thumbs of the patients. It is a common belief with midwives that if an infant after birth keeps its thumbs covered with the fingers, it foreshadows physical delicacy, but if after the seventh day it still keeps its thumb covered, it indicates mental weakness. The thumb should be long and firm and the joints of nearly equal length. If the first joint or nail joint is excessively long, it means that the possessor has a very dominating will. If the second joint is much longer than the first it indicates that the individual, though he may be very intellectual, lacks the will power to carry out his ideas. If the first joint is very supple and bends back it usually indicates a very extravagant character in every way, while the opposite is true of the straight, stiff-jointed thumb. If the thumb is short and thick it indicates the preponderance of the coarse, brutal nature which will show itself on occasions even if training and environment may have hidden it for a time. "The thumb individualizes the man."

The Fingers. Fingers are either long or short, thick or slender, straight or crooked, stiff or supple. Long straight fingers, not too

thick, are found on people who are exact and love detail and are quick to notice little things. Short fingers belong to people who are quick and impulsive, careless for appearances, jump at conclusions. When fingers are thick and clumsy, as well as short, they belong to a nature that is cruel and selfish. If the fingers are rather slender and inclined to bend backwards, they indicate a nature clever and charming, inclined to be inquisitive. Fingers that are naturally crooked or twisted denote an ill nature. The fingers of a selfish person are usually thick at the base, if waist like at the base they denote an unselfish person. Spaces between the fingers of the open hand denote independence of thought and action, especially when the space is wide between the third and fourth fingers.

If the first or index finger is very long it indicates a proud, domineering nature. Napoleon the Great had an unusually long index finger—fully as long as the middle finger, When the third finger is as long or nearly so as the first, it denotes great ambition for riches and honors. If excessively long, almost as long as the middle finger, the hand belongs to a man who is naturally a gambler. A long little finger denotes mental balance and power in speaking or oratory. Mr. Gladstone's little finger almost reached the nail of his third finger.

The Nails. These more than any other part of the hands indicate tendency to disease. In the illustration of the nails, Fig. 1 shows the kind of nail of people who are subject to throat affections. Fig. 2 is a characteristic type of one disposed to bronchial troubles. A similar type of nail, but longer, and especially where it is much curved, both from side to side and up and down, is indicative of lung trouble (Fig. 3); when, in addition, it is inclined to be square at the top and narrow at the bottom (Fig. 4) it indicates consumption. Long nails wide on top and bluish in color indicate imperfect circulation and nervous disorder. Very short nails and small (Fig. 5) indicate bad circulation from heart trouble. When shaped like that in Fig. 6 the person is liable to attacks of angina-pectoris (valvular disease of the heart). Short triangular nails (Fig. 7) or those of similar shape but wider at top and flat, indicate a tendency towards paralysis. Fig. 9 represents a type found on people liable to fits. In general it may be stated that the long, moderately curved pink nails represent good health and calm disposition. Short nails, pale in color, indicate tendency to disease of the trunk or lower limbs, and critical or quick-tempered dispositions. Where the nail is broader than it is long it indicates a combative, sometimes a brutal or sensuous nature. Clean, smooth nails, are a better indication of health than rough or lined or spotted nails. We have thus briefly outlined the principal characteristic indications of the hand as a guide to natural tendency towards health or disease, and as a guide to character. It must be borne in mind that no one indication is to be accepted as final in itself, but the different parts, the shape of the hands and fingers, the shape and color of the nails and the lines, all should be taken into consideration. One indication modifies, more or less, the other, and hence the judgment must be on the hand as a whole.

Magnetism as a Medical Agent—It is not pretended that magnetism cures all diseases; some are no doubt beyond its reach, but it is certainly a valuable auxiliary of medicine and every physician should welcome it to his field of labor and make himself familiar with its principles and practice, because a general knowledge of them would, as has been proved by thousands of experiments, relieve many of the ills of life and keep multitudes from untimely graves. Says Baron Dupotet, "The value of such a discovery as animal magnetism is to be estimated, not by the evils by which its unskillful administration may give rise, but by the positive good which may be derived from it. Already we have seen that during the state of magnetic insensibility the most painful surgical operations may be performed and the patient remain the whole time in a state of unconsciousness. Is this not a boon to suffering humanity? This is not all; the most obstinate and painful chronic diseases have been relieved and perfectly cured by its application. It was the successful treatment and cure of diseases which had notoriously resisted every other remedy that compelled the sturdiest and most inveterate of our antagonists to recognize the influence of magnetism, and when these facts were demonstrated beyond all reasonable controversy it remained for them to seek in the shadows of their imagination the solution of the mystery. In epilepsy, hysteria, neuralgia, chronic rheumatism, headache, I know of no remedy so immediate and availing. How often have I seen the victim of pain writhing in the most acute agony, sink under its influence into a state of most placid composure."

We submit the following directions for its application:

For headache, place your hand upon the part affected and exercise a constant and benevolent desire to relieve pain, and after holding it there a few minutes pass it lightly over the head from right to left. If the pain is occasioned by the stomach, next place your hand on it and proceed as with the head. If the headache is accompanied with cold feet, after holding the hands on the head for a short time, draw them slowly from the head downwards, along the sides to the knees; soon the head will be relieved and the feet become warm. If the pain has existed for years, it is chronic and must have a prolonged treatment.

In rheumatism, if local, place your hand where pain is felt, hold it there for fifteen or twenty minutes, then pass it lightly to the extremity of the feet and thus continue for ten minutes, but if the limbs generally are affected make passes a short distance from them to their extremities for an hour or more; if the disease is chronic repeat the operation daily until the relief is complete, and so with every chronic disease.

The magnetic sleep is highly restorative and should always be resorted to when the complaint is general; but when there is simply a local pain or disease, there is no necessity for it.

For toothache, hold the hand to the part affected for a few

minutes, then pass the ends of the fingers lightly over the cheek, from right to left.

In boils, magnetize when the inflammation begins.

For a felon, make passes along the arm as far as the extremity of the finger, and after lingering a moment there draw off quickly from the end.

The action of magnetism is upon the whole system. It assists the efforts which nature is constantly making to banish from the system whatever is injurious or unwholesome. Its re-establishment of a sound and healthy equilibrium is especially soothing, and when there is a deficiency of vital essence in any of the organs it strengthens by imparting that essence. It quiets the nerves, restores sleep and appetite, relieves pain, abates swellings and imparts cheerfulness and tranquility even in the case of those organic and hereditary diseases which it cannot cure.

In magnetizing for diseases, we summarize the following directions:

1. In all local affections, accumulate and concentrate the current upon the part and afterwards draw it off towards the extremities. The pain may be increased at first, but it will finally be soothed away by drawing off.

2. The fingers gathered to a point concentrate the action upon the part to which they are directed.

3. For all chronic and acute diseases and surgical operations, except in the case of rheumatism, bruises and burns and similar local affections, magnetize the whole system in the regular way and induce sleep. The magnetic lethargy will prove highly restorative and refreshing.

ANTI-TOXINE.

Anti-toxine is prepared by taking the poisonous phlegm from the throat of a diptheritic patient, cultivating it by placing it on a little beef broth or bouillon, and heating until the poison becomes intensely virulent. It is then injected into the blood of a horse until its blood is saturated with the virus. The horse is then bled and the watery part or serum of the blood preserved with carbolic acid, and this is termed anti-toxine.

The principle is similar to the inoculation for smallpox, the smallpox poison being cultivated on the udder of a cow.

MIND CURE.

Mind cure, Christian science, laying on of hands and other phases of the new things introduced from time to time, all have their basis in the well known intimate connection between the perishing body and the imperishable soul.

In many cases truly marvelous cures are effected by followers of one or the other of these new fads—for fads they are from the standpoint of scientific knowledge—but the base of the success in them all lies in the power of the mind and in the electric or magnetic force that is imparted from one person to another.

Everybody knows how a piece of bad news just after dinner stops digestion or cheerful influences aid the work of the stomach. Directing the mind constantly or frequently toward the seat of some supposed or dreaded complaint is very likely to bring on that complaint, even if no real disease was there to begin with. The cure is to direct the mind constantly away from the seat of trouble, allowing it to dwell only on a perfect, healthy condition, and accepting the temporary distress as only temporary, and sure to vanish soon. This bravely persisted in will do wonders in the way of curing incipient disease.

PROTO-NUCLEIN.

A new remedy has recently been discovered by some French and German savants and adopted by the best medical talent of Europe and America. It is known as proto-nuclein. It is prepared from the blood of healthy young cattle or pigs. It was shown by these medical experts that disease came from the too great abundance of bacterial life in the system. They also proved that the white corpuscles in the blood were the destroyers of the excess of bacterial life. In disease these corpuscles were always found to be reduced in quantity. They have proved, too, that they may be restored either by taking through the stomach or by injecting into the veins the needed amount of these corpuscles, and it was found that these could be easily obtained from the fresh blood of healthy, young animals, and the young steer or young pig furnished the best material. The remedy may be ordered through any physician or at the drug stores.

GLOSSARY:

OR

EXPLANATION OF TERMS USED IN THIS BOOK.

ABATES, Decreases in power; lessens.
ABDOMEN, The belly.
ABLUTION, Bathing; cleansing; washing the body.
ABNORMAL, Unnatural; unhealthy.
ABORTION, Miscarriage; premature birth.
ABRASION, Scraped off; skin rubbed off.
ABCESS, A cavity containing matter or pus, as a felon or boil.
ABSORBENTS, Vessels or glands which absorb or take up substances from within or without.
ACCELERATE, To increase action; to hasten.
ACID, Sour, biting, or sharp to the taste.
ACIDITY, Sourness; tartness.
ACCLIMATE, To become adapted or accustomed to the peculiarities of a country.
ACRID, Hot; burning; pungent.
ACUTE, Diseases with symptoms of a violent nature; sharp; terminating in a sharp point.
ADHESIVE, Adhering; sticking; clinging.
AD LIBITUM, At pleasure; at discretion.
AFFUSION, The act of pouring upon with a liquid; sprinkling.
ALBUMEN, A soluble substance, whose distinguishing characteristic is its coagulability; as the white of an egg, from which it takes its name, the floury part of wheat, of corn, etc.
ALIMENT, Food; nutriment; that which nourishes.
ALTERATIVE, Medicines which gradually restore health without sensibly increasing circulation, perspiration, urine, or other excretions.
ALTERNATE, By turns; first one then the other.
ALTERNATING, Taking place by turns.
AMORPHOUS, Anomalous; having no determinate character.
AMPUTATION, Severing; cutting off, as a limb from the body.
ANIMALCULE, Animals so small that they can only be seen through a microscope.
ANODYNES, Medicines which diminish sensibility, allay pain and induce sleep.
ANEMIA, Lack of blood.
ANTERIOR, In front; before; prior.
ANTIPERIODIC, Medicine for ague, or other periodic forms of disease.
ANTACID, A substance which will counteract acids—as an alkali.
ANTHELMINTICS, Medicines which destroy and expel worms.
ANTIBILIOUS, Counteracting bilious complaints.
ANTIDOTES, Remedies for poisons; medicines which counteract or destroy the effect of other medicines.
ANTISCORBUTICS, Medicines for the scurvy.
ANTISPASMODIC, A medicine which prevents or allays cramps and spasms.
AQUEOUS, Watery.
ANTISEPTIC, Whatever checks mortification or putrefaction.
ANEURISM, Enlargement of an artery in a certain part of its course, and thinning of its coats.
APERIENTS, Medicines which gently open the bowels.
APEX, The top or upper termination of a plant or thing.
APHTHOUS, Sore mouth with white spots or sloughs.
AREOLA, Colored ring around the nipple of the breast.
AROMA, Fragrance; agreeable odor.
AROMATIC, Sweet-scented; having a pleasant odor and usually a warm, pungent taste.

ASPHYXIA, Apparent death, or suspended animation, particularly from suffocation, drowning, or inhalation of irrespirable gases.
ASTRINGENT, Binding; a medicine which has the power to contract the tissues of the body and thereby check discharge.
ATONIC, Characterized by want of vital energy.
ATONY, want of tone; weakness of contractile organs.
ATTRITION, Wearing by friction.
AURA, An invisible fluid supposed to flow from a body; an odor, exhalation.
AUSCULTATION, The art of listening; particularly to sounds in the breast by the stethoscope.
BIENNIAL, Once in two years; in botany, plants which form roots and leaves the first year, produce their fruit the second year and then perish.
BILE (or Gall) A bitter fluid secreted in the glandular substance of the liver.
BILIOUS, A disease or condition due to a surplus or increase of bile.
BLAND, Mild; soft; not rough; soothing.
BRONCHIA, The pipes or tubes which convey the air into the lungs.
BRONCHITIS, A diseased condition of the air tubes leading to the lungs.
CALCAREOUS, Pertaining to the nature of limestone.
CALCULUS, A small gravel or stone which forms in the bladder and kidneys. The plural is *Calculi.*
CANKER, Small ulcers, generally covered with whitish slough.
CAPILLARY-VESSELS, The very small blood-vessels that terminate either in the skin, or on the surface of the internal cavities.
CARMINATIVE, A medicine which tends to allay pain by expelling wind from the body.
CARTILAGE, A white, elastic substance which connects the bones together, often called gristle.
CASEINE, The coagulable matter of milk; curd from which cheese is made.
CATAPLASM, Poultice.
CATAMENIA, The menstrual discharges.
CATHARTIC, A medicine which purges the bowels.
CATHETER, A tubular instrument to introduce into the bladder for the purpose of drawing off the urine.
CAUSTIC, A burning application that destroys the part to which it is applied.
CEREBRAL, Appertaining to the brain.
CEREBELLUM, The hinder and lower part of the brain.
CEREBRUM, The front and larger part of the brain.
CHANCRE, A venereal ulcer, or sore.
CHOLAGOGUE, A medicine which causes a discharge of bile.
CHORDEE, A painful erection of the penis.
CHRONIC, A term applied to diseases of long continuance and mostly without violent symptoms.
CHYLE, A milky fluid formed from the chyme after the latter has passed from the stomach into the small intestines.
CHYME, Food digested in the stomach and mixed with the gastric juice.
CLINICAL, Appertaining to observations or practice at the bed-side of the patient.
CLYSTER, An injection; a liquid substance thrown into the lower intestines.
COAGULATE, To become thick; clotted; curdled.
COITION, The act of sexual intercourse; copulation.
COLLAPSE, Complete failure, or loss of strength.
COMA, Profound stupor, or sleep.
COMMINUTION, The act of grinding; pulverizing; making fine, or very small.
CONCRETION, A collection; a compound.
CONCEPTION, The impregnation of the womb.
CONGESTION, An unusual collection of blood in any organ more than is natural.
CONDIMENTS, Articles used with food, to render palatable, as pepper, salt, mustard, etc.
CONFLUENT, Flowing together.

CONSTIPATION, Costiveness of the bowels.
CONVALESCENCE, The state of returning health after sickness.
CONVULSION, A violent contraction of the muscular parts by spasm.
CRISIS, The turning point of a disease.
CORROSIVE, Substances that have the quality of destroying, or eating away parts to which they are applied.
COPULATION, The act of sexual intercourse.
COSMETICS, Articles used to improve and beautify the skin.
COSTIVENESS, Inactivity of the bowels; stools hard and not passed away every day.
COUNTER-IRRITATION, An irritation produced in one part of the body for the purpose of relieving pain or disease located in another part.
CONTAGION, Catching, or that may be communicated by contact.
CONTUSION, A bruise.
CONTIGUOUS, Near to; next.
CRANIUM, The skull.
CREOLE, One born in America, but of European parents; also, one born within or near the Tropics, of any color.
CRUDE, Raw; unfinished; unrefined.
CUTICLE, The scarf, or outer skin.
CUTANEOUS, Pertaining to the skin.
DEBILITATED, Impaired or reduced strength; weakened; faint; languid.
DECAYING, Decomposing, rotting.
DECOCTION, A tea made by boiling any substance in water.
DEFLUXION, Flowing out.
DEGENERATE, To become worse, poorer, meaner, inferior.
DEGLUTITION, Swallowing.
DELIRIUM, Wandering of the senses; active derangement of the intellect.
DEMULCENT, A mucilaginous medicine which soothes the tender and raw portions of diseased parts.
DENTITION, Teething, or cutting teeth.
DEPLETION, Blood letting; emptying the organs of the body by any means; reducing strength.
DESQUAMATION, Peeling, or scaling off of the skin.
DETERGENTS, Medicines which cleanse.
DIAGNOSIS, The art of determining diseases by the symptoms.
DIAPHORETIC, A medicine which produces sweating.
DIAPHORESIS, Evacuation through the pores of the skin.
DIAPHRAGM, A muscular membrane between the chest and the abdomen; the midriff.
DIFFUSE, To spread; to scatter.
DIGEST, To dissolve in the stomach; steeping or infusing herbs in alcohol.
DILATE, To enlarge; to expand.
DILUENTS, Watery drinks which increase fluidity of the blood.
DILUTING, Weakening; reducing; making thinner.
DIPSOMANIA, Uncontrollable craving for intoxicating drink.
DISCUSS, To scatter; to disperse; to resolve, as to discuss a tumor.
DISCUTIENTS, Medicines which scatter or disperse morbid matter.
DISINFECTANTS, Articles which purify or cleanse infected places.
DISTEND, To stretch; enlarge; spread apart.
DIURETICS, Medicines which increase the flow of urine.
DRASTIC, Strong and violent purgatives.
DUODENUM, The first of the small intestines next to the stomach.
DURA-MATER, The outer membrane of the brain.
EFFICACIOUS, Effectual, successful.
EFFETE MATTER, That has been worn out; excreted; cast off as good for nothing.
EFFLUVIA, Exhalations from decaying matter, animal or vegetable, noxious or otherwise.
EFFUSION, A pouring, or flowing out.
EJECTED, Expelled; cast out.
ELASTIC, Springy; yielding and returning to the original state.
ELECTUARY, Medicines mixed with honey or molasses.

ELIMINATE, To throw off; cast out; remove.
EMACIATION, Wasting of flesh or substance; leanness.
EMANATE, To flow out; to proceed from a fountain head.
EMETIC, That which produces vomiting.
EMMENAGOGUE, That which promotes the menses, or monthly discharge.
EMOLLIENT, Softening; allaying irritation.
EMPIRICAL, Pertaining to experiments; quackery.
EMULGENT, That which promotes a flow of bile.
ENEMA, An injection; a clyster.
ENVELOP, To wrap; cover; surround; envelope, *n.*
EPIDEMIC, A disease affecting many in the same locality.
EPIDERMIS, The outer skin.
EPISTAXIS, The act of bleeding from the nose.
ERUCTATION, To expel gases from the stomach; to belch.
ERUPTION, Pimples; the breaking out of a humor on the skin.
ESCUTCHEON, Mark by which milking qualities of a cow are indicated.
ESOPHAGUS, The food pipe; gullet.
EUSTACHIAN TUBES, The air passages between the ears and mouth.
EVACUATE, To empty; to discharge, as from the bowels, or bladder.
EXCITANT, Stimulant.
EXCORIATE, To strip, gall, or wear off the skin.
EXCREMENT, That which is ejected from the system; the stools.
EXCRETIONS, Matter of no more use thrown from the system, as perspiration, urine, &c.
EXHALENT, Evaporating.
EXHALATION, Discharging, as air from the lungs.
EXOTIC, Foreign; not native.
EXPECTORANT, A medicine which facilitates discharge of mucus or phlegm from the lungs.
EXPECTORATION, Spitting.
EXPULSION, Expelling; removing forcibly.
EXTRANEOUS, Being without; not belonging to; not essential.
EXTREMITIES, The limbs, as the hands and feet.
EXUDE, To pass out through the surface.
FACILITATE, To assist; hasten; render more easy.
FARINA, Flour; starch; meal.
FAUCES, The back part of the mouth.
FECES, Stools; excrement.
FEBRIFUGE, Medicine used to remove or reduce fevers.
FEBRILE, Belonging to fevers, as febrile symptoms.
FETID, Offensive odor: stench; effluvium.
FETUS, An unborn child, or animal.
FIBER, A slender substance; a thread.
FILTER, A strainer; to strain through cloth.
FLACCID, Lax; limber; soft and weak.
FLATULENCE, Wind in the stomach and bowels.
FLUCTUATION, Changing; moving,
FLUOR ALBUS, Leucorrhea; whites
FLUSH, Transient or temporary redness and heat of a part or the whole body.
FOMENTATION, Local applications by means of flannels dipped in hot water.
FORMULA, A prescription.
FUMIGATION, The use of fumes or vapors, to destroy contagion or effluvia in rooms.
FUNCTION, The office which any part of the body naturally performs.
FUNDAMENT, The lower extremity of the intestines; the rectum.
FUNGUS, A spongy excrescence; proud flesh.
FRICTION, The act of rubbing.
GANGRENE, Mortification; partial death.
GASTRIC, Appertaining to the stomach.
GELATINOUS, Of the nature of gelatine; resembling jelly; viscous.
GESTATION, The state of pregnancy from conception to delivery.
GLAND, A cell, or collection of cells, in various parts of the body, composed of

blood-vessels, nerves and absorbents, and destined for the secretion or alteration of some peculiar fluid.

GLEET, Thin discharge from the urethra; one form of the venereal disease.

GLOTTIS, The opening into the wind-pipe, covered by the epiglottis.

GRANULAR, Like small grains.

HECTIC, Habitual, denoting slow, habitual fever; an unnatural, remitting fever, with chills, heat and sweat.

HEMORRHAGE, A flow of blood.

HEMORRHOIDS, Painful tumors around or within the anus; piles.

HEPATIC, Belonging to the liver.

HEREDITARY, Inherited; descended from the parent.

HYGIENE, That science which relates to the preservation of health.

HYDRAGOGUE, A medicine that occasions watery discharges from the bowels.

HYMEN, The virginal membrane, generally partly closing the entrance to the vagina.

HYPERESTHESIA, A state of morbidly increased sensibility of a part of the body

IMPERVIOUS, Impenetrable; not admitting entrance or passage through, as cloth impervious to water.

IMPOTENCY, Inability to perform sexual intercourse by the male.

IMPUNITY, Freedom, or exemption from consequences.

INFECTIOUS, That which taints, or corrupts; catching.

INFUSE, To steep in liquid without boiling for the purpose of extracting the medical properties.

INOCULATION, Communicating a disease to a person in health, by inserting infectious matter in the skin or flesh.

INSPIRATION, The act of drawing air into the lungs.

INSPISSATED, The thickening of a fluid substance by drying, or evaporation.

INTERMITTENT, Ceasing for intervals of time.

INTESTINES, The bowels.

INCIPIENT, Beginning; the outset; commencement.

INCONTINENCE, Inability to retain the discharges; also means unchastity.

INCUBUS, The night-mare; a burden.

INDIGENOUS, Native.

INFLAMMATION, Redness and swelling of any part of the body with heat and pain.

INFLATED, Filled with air.

INFUSION, Medicine prepared by steeping in cold or hot liquid.

INJECTION, Liquid thrown into the bowels or other orifice of the body by means of a syringe.

INTEGUMENT, A covering, as the skin.

LARYNX, The upper part of the wind-pipe.

LAXATIVE, A medicine that loosens the bowels.

LETHARGY, Excessive drowsiness; stupor.

LOCHIA, Pertaining to the discharges from the womb after child-birth.

LYMPH, A colorless fluid contained in the lymphatic vessels.

LIGAMENT, An inelastic, strong membrane, connecting the extremities of the movable bones or joints.

LOINS, The small of the back.

LUMBAGO, A rheumatic affection of the muscles about the loins.

LOTION, A wash.

MALARIA, Bad air; noxious gases from decomposed matter.

MACERATION, The act of softening; soaking anything in water.

MALIGNANT, Tending to produce death; threatening a fatal issue.

MANIA, Madness; insanity.

MASTURBATION, Self-pollution; onanism.

MASTICATE, To Chew.

MATERIA-MEDICA, The department of medicine which treats of the nature and properties of substances employed for the cure of diseases.

MAXIMUM, The greatest portion or number in any given case.

MIASMA, Morbid emanations from sickly, or decomposing animals and vegetables

MICTURATE, To discharge the urine.

MINIM, A drop of liquid.

MINIMUM, The least part or number in any given case.

MITIGATION, Moderating; soothing.
MORBID, Sickly; diseased.
MORBIFIC, Causing disease.
MUCUS, A slimy, ropy fluid secreted by the mucous membranes.
NATES, The buttocks.
NARCOTICS, Medicine which has the power of producing sleep.
NAVICULAR, Pertaining to the bone of the pastern or foot, which connects the joints in articulation.
NAUSEA, An inclination to vomit; sickness of the stomach.
NUCLEUS, A central spot.
NASAL, Belonging to the nose.
NEURASTHENICS, Sufferers from nervous complaints.
NAUSEATED, Made sick at the stomach.
NEUTRALIZE, To counteract; to destroy the effect of.
NITROGEN, A gaseous element without tatse, odor or color, which will not support animal life.
NITROGENOUS, Containing nitrogen.
NUTRITIOUS, Capable of supporting health and life.
NERVINE, Acting on the nerves.
NORMAL, Natural.
NYMPHOMANIA, A disease of the female, consisting of inordinate sexual desire.
OBTUSE, When applied to pain means *dull*; not being sharp or acute.
ORIFICE, The opening or mouth of a tube, or cavity.
OBESITY, Fatness; corpulency.
OBSCENITY, Unchaste in speech or action; vulgarity.
OPAQUE, Impenetrable to the rays of light; not transparent.
OS UTERI, The mouth of the uterus, or womb.
OSSIFICATION, The process of changing into a bony substance, as the ossification of an artery.
OPIATE, A medicine containing some preparation of opium.
OSSIFIED, Changed to bone.
OVARIES, Two small bodies of flattened, oval form, one of which is situated on each side of the womb, in the generative organs of the female, containing the germ which is impregnated by the spermatozoa from the male.
OVUM, An egg; *ova*, eggs.
OZONE, Oxygen in active or highly electro-negative state.
PABULUM, Nutriment; nourishment; basis of food.
PATHOLOGY, The science which has for its object the knowledge of disease
PANCREATIC, Pertaining to the pancreas and the pancreatic juice.
PALLOR, Paleness.
PAROXYSM, A fit of disease, often periodical.
PARTURIENT, Bringing forth young, or giving birth.
PARTURIFACIENT, Medicines which promote child-bed labor.
PALLIATED, Lessened; relieved.
PALLIATIVE, A medicine intended to lessen the severity of the disease.
PELVIS, The bony cavity, or basin at the lower part of the body, containing the abdomen, womb, bladder, rectum, etc.
PETIOLATE, A leaf connected with the plant by a footstalk.
PANACEA, A cure-all; universal medicine.
PEPSIN, A preparation of rennet, having properties similar to those of the gastric juice.
PEPTONOIDS, medical preparations of Pepsin.
PERENNIAL, Enduring; continuing from year to year without dying.
PERIOSTEUM, A thin, hard membrane covering the bones.
PERMEABLE, That which may be penetrated or passed through, especially by fluids.
PHARYNX, The upper part of the throat.
PERISTALTIC, The involuntary, worm-like movement of the bowels.
PERSPIRATION, Sweat.
PESSARIES, Instruments for holding up the womb when it falls down.
PENIS, One of the male organs of generation.
PERMEATE, To pass through the pores.

PLACENTA, The after-birth.
PLETHORIC, In medicine, fullness of blood, or habit.
POSTERIOR, Behind; in the rear.
POTENT, Powerful.
PRECEDE, To go before.
PREDISPOSITION, Having a tendency before hand to become affected with certain disease; susceptible to the cause of any disease.
PREGNANCY, The state of being with child.
PREPOTENCY, Predominating power (of transmitting qualities to offspring).
PROLAPSUS, A falling out, down, or forward of some part of the human body.
PSORIASIS, A cutaneous affection consisting of patches of rough amorphous scales.
PRETERNATURAL, A state or manner different from the common order of nature; unusual.
PRIMARY, First; original.
PROGENITORS, Forefathers; ancestors.
PROGNOSIS, Art of foretelling how a thing will terminate.
PROPAGATE, To beget; to produce.
PROTRUDE, To project; to jut out.
PSYCHOLOGICAL, Pertaining to the science of the mind.
PUTTING, season of heat in sheep.
PYTALISM, Salivation.
PYOTYPSIS, Spitting of purulent matter.
PUBERTY, The age at which one is capable of procreating or bearing children
PIA MATER, One of the membranes covering the brain.
PURULENT, Consisting of, or containing pus or matter.
PULMONARY, Pertaining to the lungs.
PUNGENT, Sharp; biting.
PUPIL, The round opening in the middle of the iris of the eye.
PURGATIVE, A medicine that causes a discharge from the bowels.
PUS, Matter; a whitish, thick fluid found on the surface of sores.
PULP, A soft mass.
PUSTULE, A small pimple, or eruption on the skin, containing matter.
PUTREFACTION, The state of being rotten; foul, or decomposed.
PUTRESCENT, Becoming rotten, or putrid.
QUADRUPLED, Increased four times.
RADICAL, Pertaining to the root; entire from the first.
RANCID, Strong; rank; musty.
RAREFY, To make lighter; thinner; less dense.
REFRIGERANTS, Medicines which lessen the head of the body.
RESUSCITATION, The act of relieving from apparent death; to restore vital action
REMISSION, A temporary mitigation, or lessening of severity of symptoms of any disease.
REMITTENT, To abate in violence for a time; abating periodically.
RESOLUTION, In medicine, the scattering or dispersing a tumor.
RETCHING, Vomiting; straining to vomit.
RECTUM, The last portion of the large intestines terminating at the anus.
RESPIRATION, The act of breathing.
RUBIFACIENTS, Applications which excite the skin, causing the blood to flow to it, making it red.
REVULSIVE, Medicines supposed to remove a disease by causing a determination from the seat of the disease to some other part.
RIGIDITY, Stiffness; the quality of not being easily bent.
REDUNDANCY, More than is necessary; over-fullness.
REGIMEN, A system of restrictive rules.
RURAL, Pertaining to the country; to farming and agriculture.
RUTTING, Season of heat in sheep.
SACCHARINE, Having the quality of sugar.
SALIVA, Spittle; fluid secreted by the salivary glands, and poured into the mouth, and which serves to moisten the food.
SANITARY, Tending to produce or preserve health.
SEDATIVE, A quieting, soothing medicine which allays irritation and pain.
SCIATICA, A rheumatic affection of the hip.

SEROUS, Watery.
SALUTARY, Beneficial to health.
SATURATE, Soaked; fully moistened, so no more can be taken up; full.
SCIRRHUS, A hard tumor; an indolent induration of a gland.
SCROTUM, The bag which contains the testicles.
SECRETED, Separated; taken from the blood.
SECRETIONS, The matter secreted, or taken up, as the saliva, bile, gastric juice, &c
SEDENTARY, Inactive; sitting most of the time.
SONOROUS, Giving sound when struck.
SEMI, Half.
SEMINAL, Petertaining to semen; seed.
SERUM, The watery parts of blood, or milk.
SINEW, That which unites a muscle to a bone.
SIALOGOGUE, Medicine which promotes the flow of saliva.
SLOUGH, } Separating from the living flesh, as the dead part
SLOUGHING, } in mortification.
SOLVENT, Having the power of dissolving; the fluid in which anything is dissolved.
SPASMODIC, Pertaining to cramp or convulsion.
SPAY, To emasculate the female animal.
SPERMATORRHEA, Involuntary discharge of semen.
SPINAL, Pertaining to the backbone.
SPLEEN, The milt.
SCORBUTIC, Of, or belonging to scurvy.
SEBACEOUS, Fat; like fat.
SORDES, The dark matter deposited on the teeth and lips in low fever.
STERNUM, The breast-bone.
STIMULANTS, Medicines which increase the activity of the system.
STOMACHIC, A medicine which supports and renovates the stomach, making its action healthy.
STILLBORN, Dead at birth.
STOOL, A discharge from the bowels.
STRANGURY, A difficulty in voiding the urine, attended with pain.
STUPOR, Insensibility; numbness.
STRICTURE, Contraction of any passage of the body, as a stricture of the urethra; in which the canal gradually becomes smaller until it is impossible to urinate
SCRUMOUS, scrofulous.
STYPTIC, A medicine which has the power to check the flow of blood.
SUDORIFIC, A medicine which has the power to produce perspiration.
SUFFOCATION, Choking; apparent death from suspended breathing.
SUPPRESSED, Hindered; obstructed.
SUPPRESSION, Stopping; checking.
SUPPURATION, The process of forming pus, or purulent matter.
STRANGULATION, The act of strangling; suffocation.
SYMPTOM, A sign; the peculiar mark of any disease.
SUBTLE, Insinuating; penetrating; deceitful.
SYNCOPE, Fainting, or swooning.
SYPHILIS, A venereal disease.
SOPORIFIC, Having the power to produce sleep.
SUFFUSION, The act of overspreading.
TENDON, A bunch of fibers attaching a muscle to a bone.
TEPID, Lukewarm; warm in a small degree.
TENSE, Stretched; rigid.
THERAPEUTICS, That department of medicine which treats of curing the sick by remedial agents.
THORAX, The cavity of the chest.
TINCTURES, Medicines dissolved in alcohol, or other spirits.
TRACHEA, The wind-pipe.
TRANSMUTE, To change from one substance or form into another.
TISSUES, The materials or textures which compose the different organs of the body.
TONICS, Medicines that increase the strength or tone of the animal system.

TONSILS, Glandular bodies situated on each side of the back part of the mouth.
TORPID, Inactive; sluggish; stupefied.
TORPIDITY, Inactivity; motionlessness; sluggishness.
TRIENNIAL, Continuing three years.
TUMOR, An enlargement of a particular part; a swelling.
TURBID, Muddy; dirty.
TRITURATE, To rub, or reduce to a fine powder.
TUBERCLE, A tumor of slow growth, generally of a scrofulous character.
TYMPANITIS, Inflammation of the middle chamber of the ear.
TYMPANUM, The drum of the ear.
TYPHOID, A low, sinking condition of the body.
TURGID, Tumid; swollen.
TENSION, Act of stretching; stiffness.
TURGESCENCE, State of being swelled.
ULCER, A morbid sore which discharges matter or pus.
UTERUS, The womb.
URETHRA, The passage or canal through which the urine is conducted from the bladder and discharged.
URINARY, Pertaining to the urine.
UVULA, The palate.
VICARIOUS, Performance by one organ of the functions of another.
VORACIOUS, Greedy in eating; great appetite.
VACCINATION, The act of inoculating persons with cow-pox.
VAGINA, The passage from the womb to the external parts.
VENOUS, Pertaining to the veins.
VERTIGO, Dizziness; giddiness.
VIRUS, Poison; the foul and contagious matter of an ulcer; organic poison.
VERTEBRA, A joint or segment of the back-bone; plural vertebrae.
VESICLES, Little blisters.
VARIOLOID, A modified form of smallpox.
VENERY, Sexual intercourse.
VISCID, Sticky, glutinous.
VISCERA, The bowels, or intestinal organs of the body.
VITIATED, Impure; corrupted; impaired.
VOLATILE, Capable of wasting away suddenly from exposure to the air.
VOLITION, The exercise of the will; power of choice.
YEANING, Lambing season of sheep.

What to Read First in This Book

IF THE OWNER OF THIS BOOK DESIRES HIS MONEY'S WORTH OUT OF IT BEFORE HE GETS SICK, HE HAS ONLY TO READ THE FOLLOWING ARTICLES AND HE WILL BE SATISFIED THAT HE HAS BEEN REPAID TWICE OVER. DO NOT FAIL TO READ ARTICLE ON CHILDREN—466-478.

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